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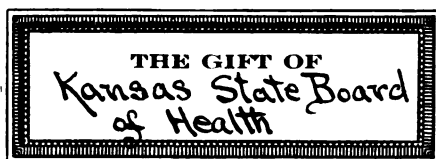
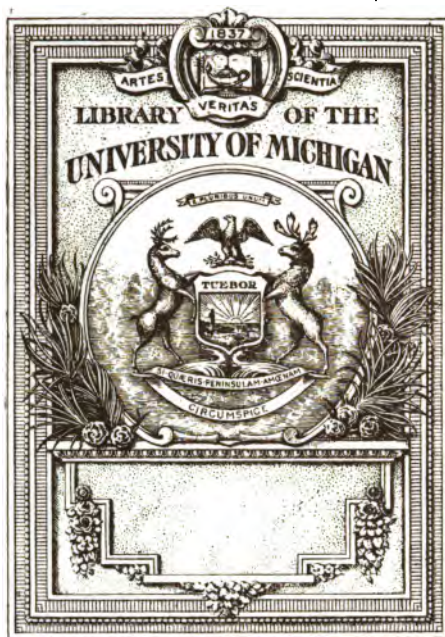
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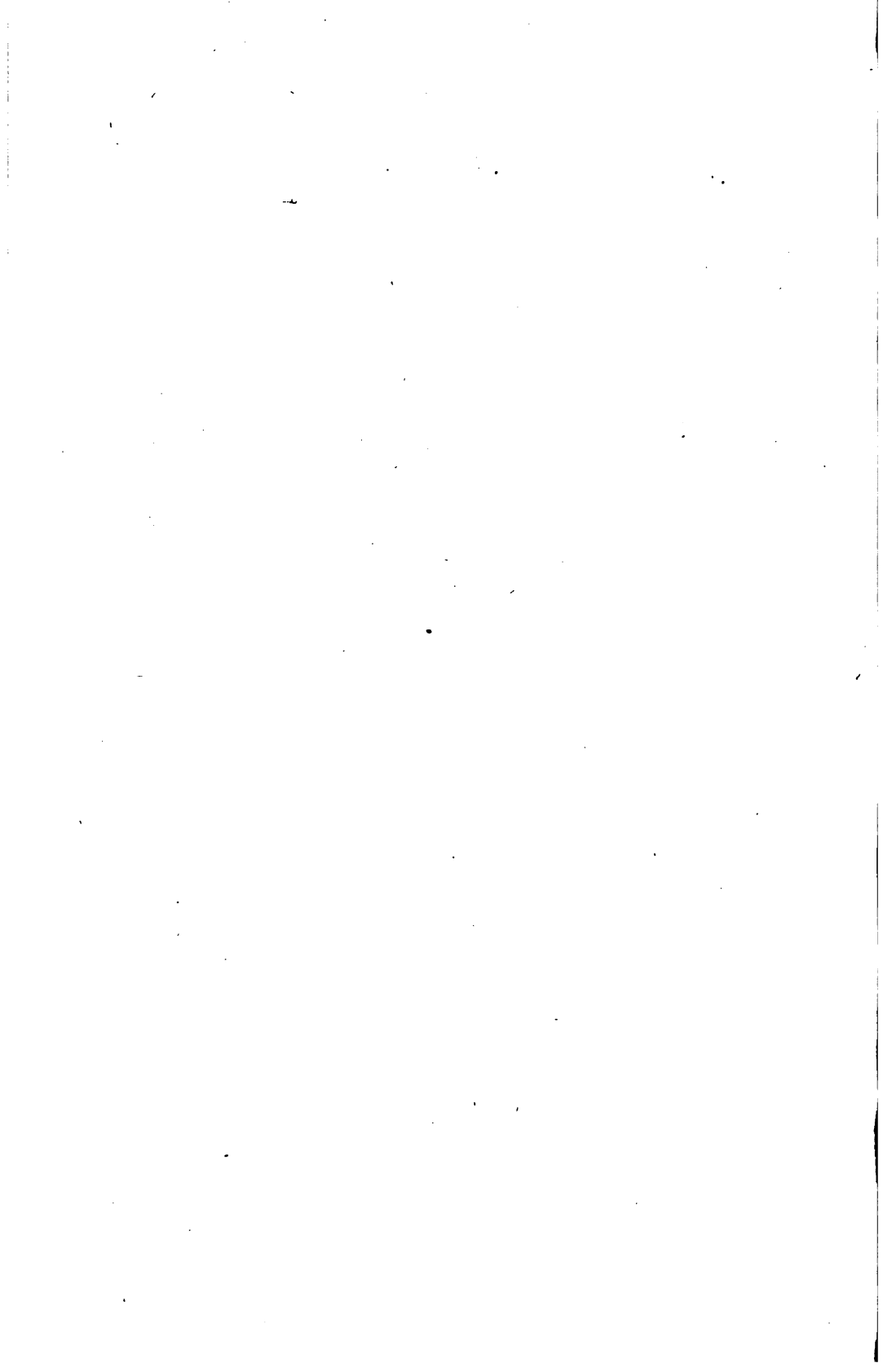
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FIRST BIENNIAL REPORT

OF THE

STATE BOARD OF HEALTH

OF THE

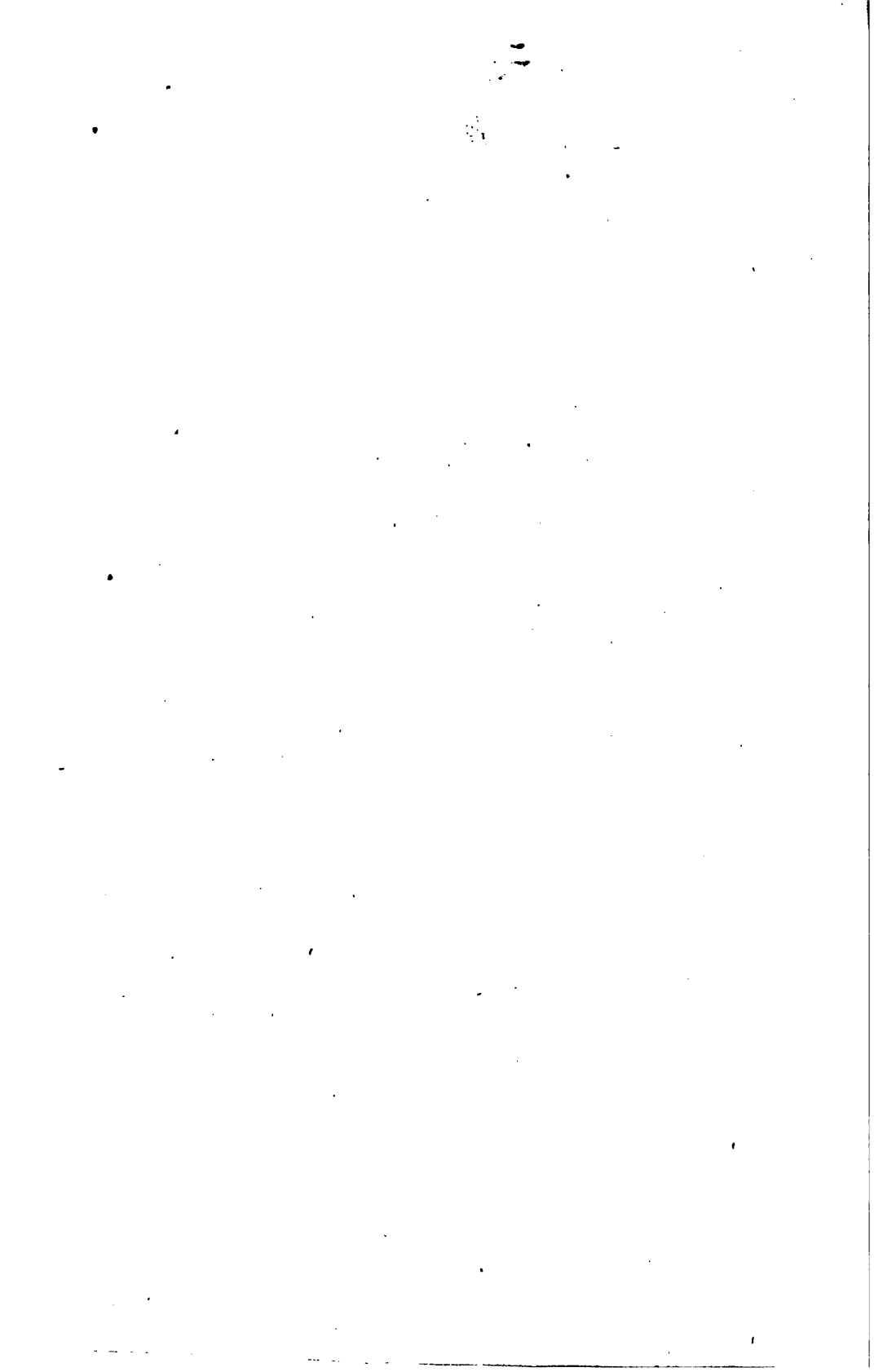
STATE OF KANSAS,

FROM

January 1, 1901, to December 31, 1902.



W. Y. MORGAN, STATE PRINTER,
TOPEKA, KAN.
1902.



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FIRST BIENNIAL REPORT

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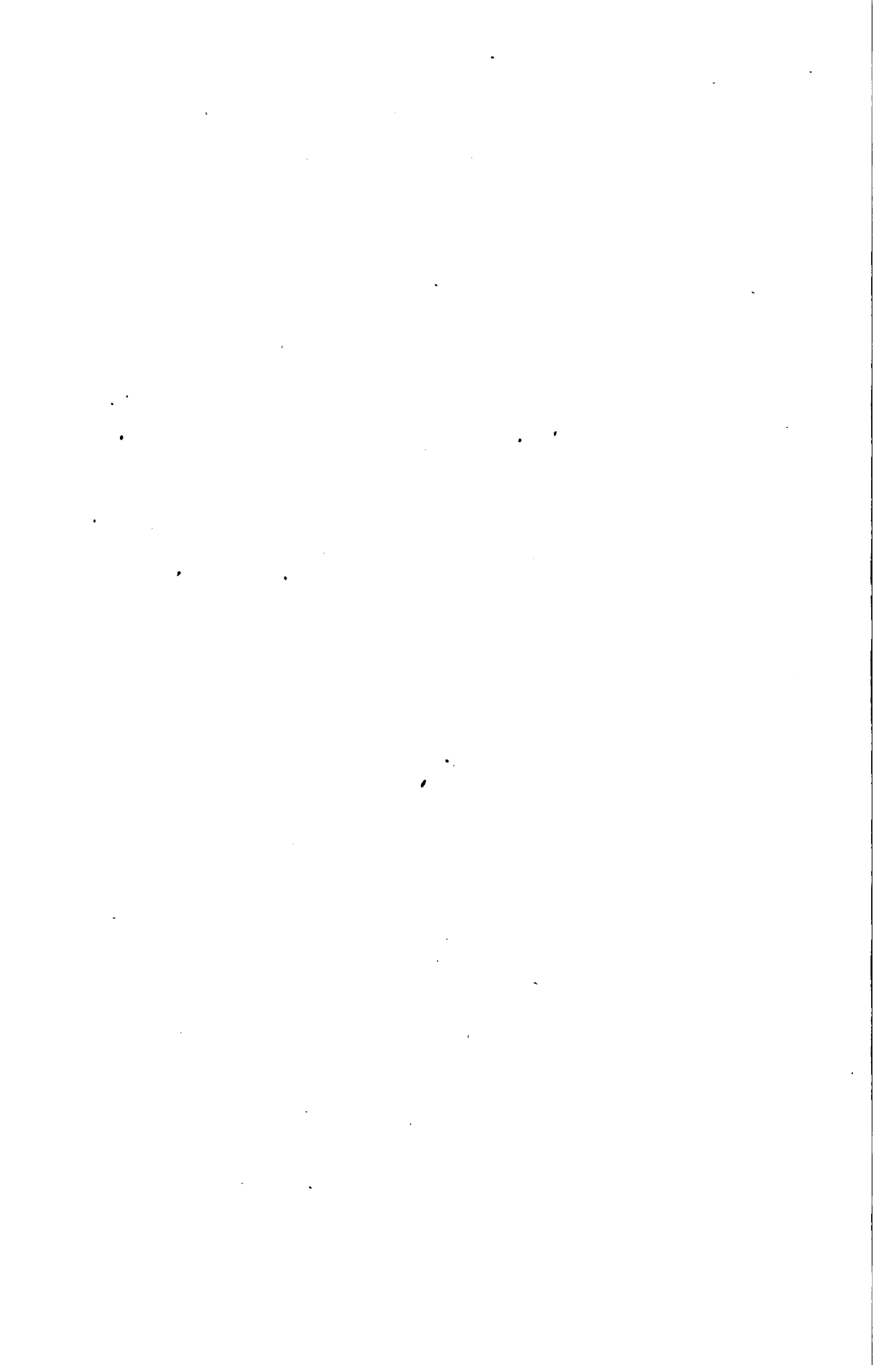
STATE OF KANSAS,

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LETTER OF TRANSMITTAL.

OFFICE OF SECRETARY OF STATE BOARD OF HEALTH,
TOPEKA, KAN., December 27, 1902.

To His Excellency W. E. Stanley, Governor:

SIR—In compliance with the laws of the state, I have the honor to herewith transmit to you the First Biennial Report of the State Board of Health, comprising the years 1901 and 1902.

Respectfully submitted.

CHARLES LOWRY, M. D., *Secretary.*

STATE BOARD OF HEALTH.

J. M. MINICK, M. D., <i>President</i> , Wichita, (H.).....	Term expires Mar. 28, 1903
G. E. LOCKE, M. D., Holton, (E.).....	Term expires Mar. 28, 1903
A. S. GISH, M. D., Abilene, (E.).....	Term expires Mar. 28, 1903
J. B. DYKES, M. D., Lebanon, (E.).....	Term expires Mar. 28, 1904
G. W. HOLLEMBEAK, M. D., Cimarron, (E.).....	Term expires Mar. 28, 1904
B. J. ALEXANDER, M. D., Hiawatha, (E.).....	Term expires Mar. 28, 1904
S. J. CRUMBINE, M. D., Dodge City, (E.).....	Term expires Mar. 28, 1905
M. N. GARDNER, M. D., Greenleaf, (E.).....	Term expires Mar. 28, 1905

ADVISORY BOARD.

F. O. MARVIN, A. M., M. Am. Soc. C. E., <i>Sanitary Adviser and Civil Engineer</i>	Lawrence.
E. H. S. BAILEY, Ph. D., <i>Chemist</i>	Lawrence.
SARA E. GREENFIELD, M. D., <i>Bacteriologist</i>	Hiawatha.

CHARLES LOWEY, M. D., *Secretary*, Topeka.

STANDING COMMITTEES.

1. On Heating, Lighting, Ventilation, and General Sanitation.—Doctors GARDNER, DYKES, and GISH.
2. On Epidemic and Endemic Diseases and Quarantine.—Doctors LOCKE and ALEXANDER.
3. On Topography, Meteorology, Hygiene, and Inspection of Public, State and Charitable Institutions.—Doctors HOLLEMBEAK, CRUMBINE, and LOCKE.
4. Water Sources, Drainage, and Disposal of Substances Dangerous to Public Health.—Doctors DYKES and GISH.
5. Special Sources of Danger to Life and Health.—Doctors GISH, GARDNER, and HOLLEMBEAK.
6. Adulteration of Foods, Drugs, and Drinks.—Doctors ALEXANDER, CRUMBINE, and DYKES.
7. Vital Statistics, Registration, and Nomenclature.—Doctors CRUMBINE, HOLLEMBEAK, and GARDNER.
8. Finance and Executive.—Doctors GARDNER and ALEXANDER.

SECRETARY'S REPORT.

TOPEKA, KAN., December 27, 1902.

To his Excellency W. E. Stanley, Governor:

DEAR SIR—In compliance with the laws of Kansas, the State Board of Health hereby respectfully submits to you the first biennial report, which constitutes the seventeenth and eighteenth annuals. This report, as the law requires, gives the vital statistics and sanitary conditions of the state for the years 1901 and 1902, and makes some suggestions for further legislative action for the better protection of the life and health of the people of the state. The board held regular quarterly meetings during the years 1901 and 1902, except the first quarterly meeting of 1902, which was omitted on account of the general expense fund of the board having been exhausted. In this connection, I wish to say that the present appropriation for the expenses of the board is inadequate to meet the requirements, and will be referred to later in detail.

The quarterly meetings of the board are uniformly well attended, all the members showing a deep interest in the work of protecting the health of the citizens of the state.

GENERAL HEALTH.

The general health of the state of Kansas for the years 1901 and 1902 has been fairly good. During the winter of 1901 smallpox prevailed to quite an alarming extent over the greater part of the state, and during the fall of 1902 we had quite an unusual amount of typhoid fever. With these exceptions, there has been no unusual amount of fatal sickness. There was a marked decrease in the amount of smallpox in 1902 over that of 1901, undoubtedly attributable to the good effects of the quarantine law passed by the legislature at its session in 1901, and also the good results following the pamphlet issued by the late secretary, Dr. W. B. Swan, giving directions for the management and care of the disease. This pamphlet took up the various phases of smallpox, giving the best opinions of the public-health authorities concerning the nature of the disease, and also full information concerning vaccination, isolation, disinfection, and quarantine. There was published in this pamphlet important sections of our public-health law. Five thousand copies were printed and freely distributed over the state. This, in connection with the good quarantine

law passed by the last legislature, had a marked influence in controlling smallpox, diphtheria, scarlet fever, and other infectious diseases. In the year 1900, the total number of cases of smallpox reported to this office was 2087, with twenty-eight deaths. The following table shows the number of cases and deaths during the years 1901 and 1902:

MONTHS.	1901.		1902.	
	Cases.	Deaths.	Cases.	Deaths.
January.....	725	4	403	0
February.....	1,335	10	423	0
March.....	1,612	8	360	1
April.....	1,084	5	457	1
May.....	741	4	310	0
June.....	319	4	75	1
July.....	90	0	72	1
August.....	24	0	11	0
September.....	28	0	10	0
October.....	244	0	21	6
November.....	137	2	30	6
December.....	380	1	22	0
Totals.....	6,719	.38	2,194	16

EMBALMERS' EXAMINING COMMITTEE.

The action of the State Board of Health in the election of the embalmers' examining committee for the state has been productive of good results. All undertakers who prepare bodies for shipment are compelled to pass an examination before this committee, and receive a license. The work of the committee has been thorough, and nearly all the undertakers of the state have applied for a license, and are working under a license granted by the State Board of Health. This brings the requirements up to those of other states.

BOARD OF MEDICAL REGISTRATION AND EXAMINATION.

One of the most important measures of the board, enacted by the last legislature, was the amendment of the medical law, creating the State Board of Medical Registration and Examination. This amendment was drawn up by Dr. S. W. Williston, then a member of the board, after a careful examination of the medical laws of the different states. The bill drafted by Doctor Williston was submitted to a full meeting of the Kansas State Board of Health, carefully revised, submitted to the legislature, and was made a law. This brings the standard of practitioners of our state up to the plane of the requirements of other states. The work of the new board has been thorough and most excellent, and while it will take some time to root out all of the unqualified medical men who have been practicing in this state for years, it will stop the overrunning of the state with fresh importa-

tions of ignorant pretenders in medicine. The members constituting this new board, appointed by the governor, were Drs. S. W. Williston, D. P. Cook, F. P. Hatfield, H. W. Roby, G. F. Johnston, E. B. Packer, and O. F. Lewis. The board was organized by electing Doctor Johnston president, and Doctor Roby secretary. At the end of the first year Doctor Packer was elected president, and Doctor Roby reelected secretary. In July of 1902, Doctor Williston resigned his membership on the board on account of having taken up his residence in Chicago, and Dr. J. M. Hamme, of Cottonwood Falls, was appointed to fill his place.

VITAL STATISTICS.

The following table has been compiled from reports made to this office by assessors, and comprises two years ending March, 1902:

MARRIAGES.		1901.	1902.
Total number of marriages.....		5,991	7,367
Number of white		5,500	6,916
Number of colored.....		134	157
Number not stated.....		357	294
BIRTHS.			
Total number of births		16,210	11,190
Number of male		8,255	5,645
Number of female		7,822	5,467
Number not stated.....		133	78
Number of white		15,872	10,765
Number of colored.....		338	225
Number not stated.....		.....	200
DEATHS.			
Total number of deaths		5,782	6,939
Number of male		3,019	3,641
Number of female		2,664	3,195
Number not stated.....		99	103
Number of white		5,387	6,365
Number of colored.....		200	312
Number not stated.....		195	262

This brief resumé of vital statistics here reported is unsatisfactory, knowing as I do how inaccurate they are, but, with the law as it is, it is the best that can be done. We get our birth and death reports from physicians, who are expected to report same to county health officers, and also from assessors who collect these statistics and file them with the county clerk. These statistics are returned to this office by the county clerks and county physicians, and should approximately correspond. As a matter of fact, there is uniformly a discrepancy in their reports, and, from a large number of counties in

the state, a very wide discrepancy. Even marriage statistics, important as it is to have them reliable, are not all recorded, for clergymen occasionally neglect to return to the probate judge the certificates for record, after having performed the ceremony.

PERSONNEL OF THE BOARD.

The personnel of the board has been changed during the past two years. On May 9, 1901, Dr. S. W. Williston, of Lawrence, resigned as a member of the State Board of Health to accept an appointment on the Board of Medical Registration and Examination. We regret to say that recently Doctor Williston has resigned from that board, and also his position as dean of the medical department of Kansas University, to accept a professorship in Chicago University. While the state of Kansas loses a valuable citizen, we congratulate Chicago University in adding to its list of professors so broad-gauged and scholarly a man.

On May 10, 1901, Dr. J. B. Dykes, of Lebanon, was appointed to fill the vacancy caused by the resignation of Doctor Williston. On June 25, 1902, Dr. R. J. Morton, of Green, resigned from the board, and the same day the governor appointed Dr. M. N. Gardner, of Greenleaf, to fill the vacancy.

The latter part of March, 1901, the governor reappointed B. J. Alexander, of Hiawatha, and G. W. Hollembeak, of Cimarron, for the term ending March 28, 1904. The appointment of Doctor Dykes will also expire in 1904. In April, 1902, the governor reappointed Dr. S. J. Crumbine, of Dodge City, and Dr. Chas. Lowry, of Topeka, for the term ending March 28, 1905. Doctor Gardner's term also expires in 1905.

On June 7, 1902, Dr. C. E. Munn, bacteriologist of the State Board of Health, died at Stormont hospital. Doctor Munn had been seriously ill for several months and suffered greatly a long time prior to his death. Doctor Munn was connected with the State Board of Health comparatively but a short time, yet his work in the capacity of bacteriologist had been of a high grade and was entirely satisfactory. Dr. Sara E. Greenfield, of Hiawatha, was elected bacteriologist in June, 1902.

The present secretary resigned as a member of the board on September 4, 1902, to accept the position made vacant by the death of Doctor Swan, who had been the efficient secretary for nearly four years.

The services of Dr. William B. Swan in connection with the State Board of Health were of such a character that an account of the personnel of the board would be incomplete without a more extended reference to his life and untimely death.

Doctor Swan was born at Paterson, N. J., in the year 1864, and was

drowned by the capsizing of a rowboat off the shore of Ludington, Mich., September 1, 1902. His early education was received in the public schools of Wisconsin. In 1889 he completed a collegiate course at Baker University, Baldwin, Kan., being graduated from that institution with high honors. In his early life he followed the trade of brass-founder, and for a number of years assisted in his father's foundry, in Topeka. In 1892 he was elected to the legislature as representative of one of the city districts of Shawnee county, and served his constituency acceptably and well. He was popular with the people of all parties and could have been reelected, but declined a second term. It had been his definite purpose in life to follow the practice of medicine as his chosen calling. With this in view, in 1893 he entered a medical college in Chicago, where he distinguished himself by his devotion to his studies. On graduating from this college, he at once entered upon the work of his profession in the city of Topeka. In the year 1899 he was elected secretary of the State Board of Health, in which position he was serving at the time of his unfortunate death. It is no disparagement to other men who have held the position of secretary of the State Board of Health to say that the service of Doctor Swan was of such a character as to receive the cordial and hearty indorsement of not only the medical fraternity, but the people of the entire state as well. He made an ideal secretary. He brought to the discharge of the duties of his office devotion to the work, sound scholarship, and good business principles. During his term of service, by his influence he brought about needed legislation, thereby strengthening and making more efficient the work of the Board of Health. On account of his pleasing personality he was always fortunate in securing the cooperation of the local health officers in the various counties of the state. Upon his labors in this direction, however, it is not necessary to dwell. What he accomplished along this line has been recorded in his own reports.

Last August Doctor Swan went with his family to Ludington, Mich., for the purpose of taking a much-needed rest. While there he enjoyed the pleasures of that summer resort to its fullest measure. The term of his vacation was drawing to a close and he was making preparations to return to his home in Topeka. On the evening before the day set for his departure, he, with two friends with whom he had been in bathing, resolved to try the sport of rowing on the lake in the face of a rough sea which happened to be on at the time. They rowed out a distance of some 400 feet from the shore and were on the point of turning when a huge wave struck the boat and capsized it, throwing the three out into the water. Doctor Swan, unfortunately, could not swim, and, though his two friends made every possible effort to save

his life, he soon sank. His body was washed ashore some forty minutes after the accident, and at once every effort was put forth to resuscitate him, but with no avail. His life was gone out. His death is a loss to the State Board of Health, to the people of the community in which he lived, to the profession which he represented, and to the whole state of Kansas. Cheerful in disposition, cordial and kind in his treatment of all, he soon called around him a circle of admirers and friends, who deeply mourn his loss. He was loyal to his friends, devoted to his calling, ideal in his home life, and faithful as a public official. Doctor Swan represented in the best sense the highest type of manhood and the highest type of citizenship. Of him it can truly be said that the world is better for his having lived.

RECOMMENDATIONS.

The State Board of Health would recommend the enactment of several laws that would materially increase its usefulness. At the present time the board has merely an advisory position in regard to the disposition of sewage and the control of the water-supply for towns and institutions of the state. No law would be more far-reaching in its good effects than to place the sewage systems and water-supply under the absolute control of this board. The board has among its advisory members Prof. F. O. Marvin, who is an expert sanitary and civil engineer, who should have greater influence and power in the control of these sanitary matters.

Another change should be the placing of the bacteriologist of the board upon a salary. The present arrangement of paying a fee of five dollars for each examination made is unsatisfactory and limits the work to such an extent that it is of comparatively little value. The arrangement should be such that all physicians in the state could send work of this character, which many times is of great importance, to the state bacteriologist and have it done without expense to them. Heretofore these examinations have been made in the private office of the bacteriologist, and it would be more desirable to have such work done in a laboratory at the state-house.

The board would also recommend that the law creating the State Board of Health be amended so as to allow the appointing by the governor of one layman on the board, preferably an attorney interested in sanitary science.

Some legislation is also very much needed which would make it possible to get from physicians an accurate report of all births and deaths which occur in the state, and also that would compel those who perform marriage ceremonies to return the certificate of marriage to the probate judge, thus enabling us to have more accurate vital statistics.

There is an urgent necessity for a change in the appropriation for the general expenses of the board. The salary of the secretary should be raised from \$1200 to \$1500 a year. The appropriation for the stenographer should be \$600 instead of \$540 a year. There should be an appropriation of \$500 a year for a bacteriologist. The appropriation of \$800 as made two years ago for sanitary fund can be cut down to \$300. The board has been crippled the past two years on account of the small amount appropriated for expenses, which was only \$460. This is entirely insufficient to pay the expense of the four quarterly meetings and other incidental expenses; we should have \$700 a year. This will make a total of \$3600, and will very largely increase the usefulness of the board. Respectfully submitted.

CHARLES LOWRY, M. D.,
Secretary.

PROCEEDINGS OF THE BOARD—1901.

FIRST QUARTERLY MEETING.

TOPEKA, KAN., March 15, 1901.

To Drs. B. J. Alexander, president, J. M. Minick, G. E. Locke, A. S. Gish, G. W. Hollembeak, S. J. Crumbine, Charles Lowry, E. J. Morton, S. W. Williston :

DEAR DOCTORS—You are hereby notified that the next regular quarterly meeting of the Kansas State Board of Health will be held in the office of the secretary, at the state-house, in the city of Topeka, on the 28th day of March, 1901 at 1:30 o'clock P. M.

Please acknowledge receipt of this notice, and oblige, Yours truly,
B. J. ALEXANDER, M. D., *President*. W. B. SWAN, M. D., *Secretary*.

TOPEKA, KAN., March 28, 1901.

The State Board of Health convened in the office of the secretary, and was called to order by the president, Dr. B. J. Alexander, at two o'clock P. M. of this day.

Members present: Drs. Minick, Locke, Gish, Lowry, Alexander, Williston, Morton, and Crumbine.

Absent: Dr. G. W. Hollembeak.

The minutes of the last quarterly meeting were read by the secretary, and approved. The board then expressed the desire that Dr. C. E. Munn, the recently elected bacteriologist of the board, might be present. It was moved and carried that the secretary invite Doctor Munn to the meeting.

The secretary's report, being next in order, was read, adopted by the board, and ordered placed on file.

The following resolution was offered by Doctor Williston for adoption :

Resolved, That the secretary, whenever the funds will permit, invite the advisory members of the State Board of Health to the meetings of the board and request their attendance.

The resolution was adopted. A discussion of the new medical bill then followed.

Under the head of new business, the secretary read section 6 of chapter 75 of the General Statutes of 1897, and offered the following resolution for adoption: "To facilitate the business of the board and to have bills settled monthly, the secretary of the State Board of Health is hereby authorized to approve all vouchers of this department." Carried.

Doctor Crumbine requested information as to what privileges

physicians have to send specimens for bacteriological examination, and the secretary gave as his opinion, that they were at liberty to send specimens where the examination would benefit the public, and as long as the appropriation for this purpose held out.

It was moved that the secretary be instructed to expend not exceeding ten dollars for mailing-tubes for bacteriological specimens. Carried.

It was moved by Doctor Crumbine, seconded by Doctor Lowry, and carried, that the two members of the board, Drs. S. W. Williston, of Lawrence, and R. J. Morton, of Green, have the indorsement of this board for positions on the State Board of Medical Registration and Examination, about to be appointed.

The board also carried the motion that, with the approval of the attorney-general, the board will defray all necessary expenses in defending the secretary, Dr. W. B. Swan, in the suit about to be brought in the district court of Brown county.

The question of the duties of county health officers was of much interest to the board, and a lengthy discussion on that subject was held.

There being no further business to come before the board, it was moved that the board adjourn, to meet on the 13th day of June, 1901. Carried.

BILLS ALLOWED.

S. W. Williston.....	\$3 31
S. J. Crumbine.....	25 28
R. J. Morton.....	9 09
A. S. Gish.....	7 32
G. E. Locke.....	5 60
B. J. Alexander.....	8 60
J. M. Minick.....	14 74
Total.....	\$73 94

W. B. SWAN, M. D., *Secretary.*

SECRETARY'S REPORT.

Mr. President and Gentlemen of the Board :

GENTLEMEN—Since the last quarterly meeting, December 12, the work of this office has been exceedingly heavy. Many demands have been made upon the time of the secretary from various points over the state. During December following the meeting of the board, I was called to Garnett and Pittsburg. During January, I visited the following places: Smith Center, Waldo, Russell, Salina, Abilene, Sharon Springs, Pittsburg, Phillipsburg, and Agra. On March 3 I was called to Girard. Following that, on the next day, I visited Weir City and Columbus. My presence at all these places was desired on account of the existence of smallpox. At some of these places they desired my assistance in determining the diagnosis of smallpox; at others, to assist the local health authorities in estab-

lishing quarantine. During the present year smallpox has certainly been epidemic in certain quarters of our state. During the month of January, 725 cases and four deaths were reported to this office; during the month of February, 1335 cases and ten deaths were reported; up to the present date in March, 1612 cases and eight deaths. At Agra, in Phillips county, a dispute arose over the nature of the disease, and no precautions were taken until a large number of the inhabitants of the town had been exposed. The local authorities of the town seemed reluctant to handle the disease properly; so, on request of the local county authorities, the entire town was quarantined for about two weeks. Deputy sheriffs were placed on guard and no communication was allowed with any other part of the county. During that period the Rock Island railroad received no passengers from the town. In a short time the disease was under control, a local house quarantine was established, and the quarantine about the town was raised. During the present year, up to date, about half of the cases of smallpox reported to this office have occurred in the counties of Crawford, Cherokee, Labette, and Phillips.

At the present time, I am pleased to be able to report that Crawford and Cherokee counties are maintaining better quarantine than at any time heretofore. The situation in the northern part of Cherokee county has, indeed, been deplorable. At the time of my visit to Weir City, March 4, there were from 150 to 250 cases of smallpox in that town, and not the least effort made to quarantine a single case or to interfere in any way with their liberty. I met with the commissioners of Cherokee county, and demanded of them, in the name of the State Board of Health, that a rigid quarantine be established about every case of smallpox in the northern part of their county or it would be necessary for the State Board of Health to establish a quarantine about the county. A few days after my visit I received the following notice signed by the chairman of the local board of health; since this action by the local board of health the smallpox situation in the northern part of Cherokee county has been decidedly improved:

IMPORTANT NOTICE.

"To all Physicians, City Officials, and the People generally:

"The present health conditions of Cherokee county are such that we deem it necessary to take positive and thorough precautions against the further spread of the contagious and infectious diseases now prevalent.

"The law governing in this matter is such that it is the duty of every practicing physician who shall know or have reason to believe that any person whom he is called to visit is sick with any contagious or infectious disease to report such case to the nearest board of health or health officer, and to post a large, plainly lettered placard upon the front door of the house, to be kept so posted until ordered removed from such house by the health officer; and whenever any householder shall know that any member of his family is sick with, or has died of, any contagious or infectious disease, he shall give immediate notice of the fact to the nearest board of health or health officer, and shall cause his house to be placarded, as above provided. And said health officer thus notified shall at once cause premises to be thoroughly fumigated as the law directs.

"Now, this is to notify all practicing physicians, city officials and the people generally of Cherokee county, Kansas, that the provisions of the law relating to public health will henceforth be vigorously carried out, and that all physicians, city officials and all others made liable under the law will be promptly prosecuted for failing to comply with the provisions of the law in any respect. As a penalty for the violation of the law, a fine of not less than twenty-five dollars nor more than \$100 may be adjudged against the violator, for every offense.

"We are led to the publication of this notice on account of the present health conditions of the county, and for the further reason that the secretary of the State Board of Health has, within the last few days, visited the county, and has given us to understand that, unless prompt and well-directed measures be at once taken to prevent the further spread of such contagious or infectious diseases, the entire county will be thoroughly quarantined against any and all intercourse with the outside world, and will remain so quarantined until such diseases shall be stamped out.

"By order of the board of county commissioners, the 5th day of March, 1901.
WM. H. PETERS, *Chairman of the Board.*"

The following monthly smallpox bulletins, giving the number and location of all cases of smallpox as reported to this office, have been published and sent to all state and local health authorities:

"TOPEKA, KAN., February 7, 1901.

"DEAR DOCTOR—In compliance with the resolutions adopted by the National Conference of State and Provincial Boards of Health, at Toronto, 1886, and Washington, 1887, it becomes my duty to inform you that smallpox has been reported to this office from the following points in the state of Kansas during the month of January, 1901:

"Achilles, 1 case; Bourbon county, 1 case; Caney, 1 case; Cheryvale, 13 cases; Cherokee county, 149 cases, 1 death; Clay county, 11 cases; Coffeyville, 30 cases; Coolidge, 30 cases. Crawford county: Chicopee, 5 cases; Fleming, 8 cases; Miller's Shaft, 10 cases; Midway, 8 cases; Mulberry, 24 cases; Yale, 6 cases; balance of county, 156 cases, 2 deaths. Dodge City, 6 cases; Edna, 11 cases; Elgin, 1 case; Elmdale, 1 case; Great Bend, 4 cases; Greenwood county, 3 cases; Hiawatha, 8 cases; Hoisington, 3 cases; Independence, 1 case; Kingman, 1 case; Lawrence, 2 cases; Lecompton, 3 cases; Lincoln, 1 case; Marion county, 2 cases; McPherson, 1 case; Medicine Lodge, 6 cases; Neodesha, 5 cases; Norton county, 46 cases, 1 death; Osage county, 29 cases; Osborne county, 12 cases; Phillips county (estimated), 50 cases; Shawnee county, 2 cases; Smith county, 3 cases; Sumner county, 22 cases; Topeka, 18 cases; Waldo, 24 cases; Wallace county, 3 cases; Wamego, 1 case; Wauneta, 2 cases, Yates Center, 1 case. Total number of cases, 725; total number of deaths, 4.

"About one-half of these cases occurred in Crawford and Cherokee counties, and three of the four deaths reported for the month occurred in these counties. Of late the health authorities there have gotten the smallpox situation in much better shape, and during the present month we look for a large decrease in the number of cases. In other parts of the state the epidemic is being controlled as well as could be expected. Our health authorities have great difficulty in controlling the spread of this disease on account of the lack of stringent health laws.

Very respectfully, W. B. SWAN, M. D.,
Secretary State Board of Health."

"TOPEKA, KAN., March 8, 1901.

"DEAR DOCTOR—In compliance with the resolutions adopted by the National Conference of State and Provincial Boards of Health, at Toronto, 1886, and Washington, 1877, it becomes my duty to inform you that smallpox has been reported to this office from the following points in the state of Kansas during the month of February, 1901:

"Bourbon county, 11 cases; Chautauqua county, 21 cases, 1 death; Clay Center, 2 cases; Clay county, 5 cases; Coffey county, 43 cases; Coffeyville, 51 cases; Colby, 1 case; Crawford county, 392 cases, 2 deaths; Cherokee county,

smallpox in county, number of cases not reported; Dickinson county, 10 cases; Edna, 4 cases; Graham county, 25 cases; Great Bend, 6 cases; Greensburg, 4 cases; Greenwood county, 7 cases; Hamilton county, 30 cases; Hutchinson, 2 cases; Kingman, 3 cases; Kinsley, 3 cases; Lawrence, 6 cases; Labette county, 89 cases; Montgomery county, 10 cases; Neosho county, 30 cases, 1 death; Ness county, 4 cases; Norton county, 80 cases; Osage county, 14 cases; Pawnee county, 25 cases; Phillips county, 217 cases, 2 deaths; Republic county, 42 cases, 1 death; Richfield, 1 case; Rooks county, 1 case; Salina, 9 cases; Silver Lake, 2 cases; Sharon Springs, 3 cases; Shawnee county, 26 cases; Sherman county, 7 cases; Smith county, 10 cases; Stafford county, 40 cases, 2 deaths; Stockton, 1 case; Sumner county, 30 cases, 1 death; Topeka, 65 cases; Waldo, 2 cases; Woodson county, 1 case. Total number of cases, 1335; total number of deaths, 10.

Very respectfully,

W. B. SWAN, M. D.,

Secretary State Board of Health."

In addition to smallpox, a large number of cases of scarlet fever and diphtheria have been reported to this office during the last quarter. The fatality from the eruptive diseases during the winter has not been high—that of smallpox not more than one per cent; diphtheria and scarlet fever considerably higher than that.

The legislature which has just adjourned has given the state more medical legislation than during any session for the past thirty years, and on this account I trust that during the coming winter the contagious diseases can be more readily controlled. The following act relating to public health became a law upon its publication in the official state paper, February 15:

"AN ACT relating to public health, and providing penalties for the violation of the provisions of the same.

"Be it enacted by the Legislature of the State of Kansas:

"SECTION 1. Whenever any physician shall know or have reason to believe that any person whom he is called to visit, or any person sick within his knowledge without the care of a physician, is sick with or has died of cholera, smallpox, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis, or any disease dangerous to the public health, he shall immediately give notice thereof to the nearest board of health or health officer, and, if the case occurs in his own practice, shall at once cause a red or yellow cloth or card not less than twelve inches square, with the name of the disease written or printed thereon in large characters, to be fastened upon the front door or other conspicuous part of the building wherein the sickness prevails; such cloth or card to be maintained during the existence of the disease, and until such time as the health officer, or, in his absence, the attending physician, acting by his authority and approval, is satisfied that the premises have been thoroughly disinfected and are fit for reoccupation.

"SEC. 2. Whenever any householder shall know that any of his family is sick with or has died of smallpox, cholera, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis, or any disease dangerous to the public health, he shall immediately give notice thereof to the nearest board of health or health officer, and shall cause the house to be placarded as prescribed in section 1.

"SEC. 3. Any municipal or county board of health or health officer having knowledge of any infectious or contagious disease, or of a death from such disease, within their jurisdiction, shall immediately exercise and maintain a supervision over such case or cases during their continuance, seeing that all such cases are properly cared for and that the provisions of this act as to isolation, restriction of communication, placarding, quarantine and disinfection are duly

enforced. The local board of health or health officer shall communicate without delay all information as to existing conditions to the State Board of Health. Said health officer will confer personally, if practicable, otherwise by letter, with the physician in attendance upon the case, as to its future management and control, and with the authorities of the place, as to their duties in the premises. Should the disease show a tendency to become epidemic, the public and private schools must be closed, and, in extreme cases, church services suspended and public assemblages of people at shows, circuses, theaters, fairs or other gatherings prohibited. In case of smallpox, a general and thorough vaccination should be recommended and insisted upon.

"SEC. 4. All persons sick with smallpox, cholera, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis or any contagious or infectious diseases dangerous to the public health shall be thoroughly isolated from the public and properly quarantined.

"SEC. 5. Members of any household in which cholera, smallpox, diphtheria, scarlet fever, epidemic cerebro-spinal meningitis, measles or other infectious or contagious diseases exist shall be required to abstain from attending places of public amusement, worship, and from visiting other private houses. No person recovering from such diseases shall be permitted to appear on the public street or highways or in any public place until after danger from contagion is past and the premises thoroughly disinfected.

"SEC. 6. No person inflicted with any infectious or contagious disease dangerous to the public health shall be admitted into any public or private school. No parent, guardian, tutor or other person having charge or control of children whose residence is infected with smallpox, cholera, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis or other infectious or contagious disease dangerous to the public health shall allow or permit them to attend any public or private school during the continuance of such infection, or until the premises have been thoroughly disinfected and all danger from contagion has passed.

"SEC. 7. No funeral shall be allowed, either at the house or church, where death occurs from smallpox, cholera, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis, or other infectious disease dangerous to the public health.

"SEC. 8. Diphtheritic croup, croupous diphtheria, membranous croup, croup other than spasmodic, putrid fever, diphtheritic sore throat, and sloughing sore throat, occurring in communities where diphtheria is prevalent, shall be included among the diseases dangerous to the public health, and subject to the same precautions as diphtheria. In like manner, patients suffering from or exposed to scarlatina or scarlet rash or varioloid shall be required to undergo the precautions prescribed for scarlet fever and smallpox, respectively.

"SEC. 9. It shall be the duty of every physician in attendance upon any person afflicted with any contagious or infectious disease designated in this act to notify the proper health officer when said premises are ready for disinfection, so that the same may be properly disinfected under the direction of said health officer or some other person under his authority.

"SEC. 10. Whenever cholera, smallpox, diphtheria, scarlet fever, epidemic cerebro-spinal meningitis or other infectious or contagious diseases show a tendency to become epidemic, and the local health authorities neglect to properly isolate and quarantine such diseases, the State Board of Health or its executive officers may quarantine any city, township or county in which any of these diseases may show a tendency to become epidemic.

"SEC. 11. Any person found guilty of violating any of the provisions of this act or failing to comply with any requirements thereof shall be, upon conviction,

fixed not less than twenty-five dollars nor more than one hundred dollars for each offense.

"SEC. 12. This act shall take effect and be in force from and after its publication in the official state paper."

The following law relating to the sale of morphine, cocaine and chloral was passed by our last legislature and is of interest to all physicians:

[House bill No. 747—Published March 8, 1901.]

"AN ACT to prohibit the sale of morphine, cocaine and chloral except upon the prescription of a physician, and providing penalties for the violation of this act.

"Be it enacted by the Legislature of the State of Kansas:

"SECTION 1. Any person, company or corporation who shall sell, trade or give to any other person any morphine, cocaine or chloral except upon the prescription of a physician shall be deemed guilty of a misdemeanor, and shall upon conviction be punished by a fine of not less than \$25 nor more than \$100, or by imprisonment in the county jail for a period of not less than thirty days nor more than ninety days, either or both, in the discretion of the court.

SEC. 2. This act shall take effect and be in force from and after its publication in the official state paper."

The following is the new medical-practice act, which, on the 22d of March, 1901, became the law of our state:

[Chapter 254 of the Session Laws of 1901, relating to the practice of medicine.]

"AN ACT to create a State Board of Medical Registration and Examination, and to regulate the practice of medicine, surgery and osteopathy in the state of Kansas, prescribing penalties for the violation thereof, and repealing chapter 68 of the Session Laws of 1870.

"Be it enacted by the Legislature of the State of Kansas:

"SECTION 1. Within sixty days after the passage of this act, the governor, by and with the consent of the senate, shall appoint a State Board of Medical Registration and Examination, consisting of seven members, one to serve for one year, two for two years, two for three years, and two for four years, and the successors of each shall be appointed in the same manner for the term of four years, who shall be physicians in good standing in their profession, and who shall have received the degree of doctor of medicine from some reputable medical college or university not less than six years prior to their appointment; representation to be given to the different schools of practice as nearly as possible in proportion to their numerical strength in this state, but no one school to have a majority of the whole board. Each member of the board shall take and subscribe the oath prescribed by law for state officers, which oath shall be filed with the secretary of state. The board shall organize by the selection of a president and secretary from among their own number, each to serve for such term as the board may designate, not exceeding four years. It shall have a common seal and shall formulate rules to govern its actions. Its president and secretary shall have power to administer oaths pertaining to all matters related to the business of the board. The secretary shall furnish to said board a satisfactory bond, conditioned for the faithful performance of his official duties. Said board shall hold regular meetings on the second Tuesday in February, June and October of each year, and one other meeting, at such time and place as the board may designate, in such of the chief cities of the state as the board may

designate. Five members shall constitute a quorum for the transaction of all business; but no license to practice medicine and surgery shall be issued by the board upon less than five affirmative votes when the full board is present, or upon less than a majority affirmative votes when less than a full board is present. The board shall keep a record of all of its proceedings, and also a register of all applicants for license to practice medicine in all of its branches within the state, together with a record showing the age of the applicant, time spent in the study of medicine, and the name and location of the institution or institutions from which the applicant may have received degrees or certificates of medical instructions; also, whether the candidate was licensed or rejected. Said books and register shall be *prima facie* evidence of all matters recorded therein.

"SEC. 2. All persons engaged in the practice of medicine on the date of the passage of this act shall, within four months from the date of such passage, apply to the Board of Registration and Examination for a license to practice. To all such as present the following qualifications the board shall issue a license, upon payment of fee hereinafter specified: If a graduate in medicine or surgery, he shall, either personally or by letter or proxy, present his diploma to the State Board of Medical Registration and Examination for verification. Accompanying such diploma the applicant shall file his affidavit, duly attested, stating that the applicant is the person named in the diploma, and is the lawful possessor of the same, and giving his age and time spent in the study of medicine. If the board shall find the diploma to be genuine, and from a legally chartered medical institution in good standing, as determined by the board, and the person named therein be the person holding and presenting the same, the board shall issue its certificate to that effect, signed by its president and secretary, which, when left for record with the county clerk of the county in which said applicant practices, as hereinafter required, shall be conclusive evidence that its owner is entitled to practice medicine and surgery in this state. If a practitioner of medicine in Kansas at the time of the passage of this act, but not a graduate of medicine or surgery as above defined, he shall, either personally or by letter or proxy, furnish the board affidavits, duly attested, stating the period during which and the places at which he has been engaged in the practice of medicine or surgery. If the board is satisfied from the affidavit and other information received that the applicant was a resident engaged continuously in the practice of medicine in the state of Kansas for seven years prior to the passage of this act, it shall issue its certificate to that effect, which, when left for record with the county clerk of the county in which he resides, shall be conclusive evidence that its owner is entitled to practice medicine and surgery in this state. If engaged in the practice of medicine in this state at the time of the passage of this act for a less period than seven years prior to the passage of this act, and not a graduate in medicine or surgery as above defined, the applicant shall present himself before the board and submit to such examination as to his qualifications for the practice of medicine and surgery as the board may require. If the applicant passes the examination satisfactory to the board, the board shall issue its certificate to that effect, which, when left for record with the county clerk of the county in which he resides, shall entitle its owner to practice medicine or surgery in this state. The board may refuse to grant a certificate to any person guilty of felony or gross immorality or addicted to the liquor or drug habit to such a degree as to render him unfit to practice medicine or surgery, and may, after notice and hearing, revoke the certificate for like cause.

"SEC. 3. All persons intending to practice medicine, surgery or osteopathy after the passage of this act, and all persons who shall not have complied with

section 2 of this act, shall apply to said board at any regular meeting, or at any other time or place as may be designated by the board for a license. Application shall be made in writing, and shall be accompanied by the fee hereinafter specified, together with the age and residence of the applicant, proof that he or she is of good moral character, and satisfactory evidence that he or she has devoted not less than three periods of six months each, no two within the same twelve months, or, if after April 1, 1902, four periods of not less than six months each, no two in the same twelve months, to the study of medicine and surgery. All such candidates, except as hereinafter provided, shall submit to an examination of a character to test their qualifications as practitioners of medicine or surgery, and which shall embrace all those topics and subjects a knowledge of which is generally required by reputable medical colleges of the United States for the degree of doctor of medicine; provided, that the examination in materia medica and therapeutics and in the theory and practice of medicine shall be conducted by those members only of the board who are of the same school of practice as the applicant claims to follow; provided further, that graduates of legally chartered medical institutions of the United States or foreign countries in good standing, as determined by the board, may be, at the discretion of the board, granted a license without examination; provided further, that any graduate of a legally chartered school of osteopathy wherein the requirements for the giving of a diploma shall include a course of instruction of not less than four terms of five months each, in two or more separate years, shall be given a certificate of license to practice osteopathy upon the presentation of such diploma; provided further, that the board may in its discretion accept, in lieu of examination or diploma, the certificate of the board of registration and examination of any other state or territory of the United States or any foreign county whose standards of qualification for practice are equivalent to those of this state; provided, that a temporary certificate may be issued to any student of medicine or practitioner of medicine who is not qualified under the law, upon the written request of a majority of the practitioners of medicine under this act in the county in which he or she desires to practice, or, if there be no practitioners registered under this act in any county in this state, the board shall issue a temporary permit to persons as above described upon the application of the board of county commissioners of said county.

"SEC. 4. Upon the completion of the examination or the acceptance of the diploma or certificate as herein provided, the said board shall, if it finds the applicant qualified, grant and issue a certificate to said applicant to practice medicine and surgery or osteopathy within this state, and which shall be signed by the president and secretary and attested by the seal of the board. Within thirty days of the date of any certificate of license having been granted and issued by the board, the owner thereof shall have it recorded as hereinafter provided in the office of the clerk of the county in which he resides, or, if a non-resident of this state, then of the county in which he has an office or intends to practice, and the date of recording shall be indorsed thereon; and until such certificate or license is recorded he shall not exercise any of the rights or privileges therein conferred. The county clerk shall keep in a book for the purpose a complete list of the certificates recorded by him, which book shall be open to public inspection during business hours. Between the 1st and 20th days of December in each year, the county clerk shall furnish the secretary of the board a list of all certificates recorded and in force, and also a list of all certificates which have been revoked or the owners of which have removed from the county or died dur-

ing the year. The fee for the recording and reporting of such certificates shall not exceed one dollar.

"SEC. 5. The fee for the issuance of a certificate to all those found qualified to practice medicine, surgery or osteopathy without examination, as provided under section 2, shall be two dollars. The fee for examination shall be fixed by the board, but shall not exceed fifteen dollars. The fee for examination of diploma or certificate from an examining board of another state shall also be fixed by the board, but shall not exceed ten dollars. All moneys received by the board shall be paid by the secretary thereof into the state treasury monthly. The compensation and actual traveling and other expenses of the board shall be paid from the treasury of the state; provided, that the total amount paid from the state treasury under the provisions of this act shall not exceed the amount paid into the treasury as herein provided. The compensation of the members of the board shall be six dollars for every day actually spent in the discharge of their duties. In addition to his actual traveling expenses, the secretary shall receive a salary, to be fixed by the board, but it shall not exceed eight hundred dollars per annum. All of such compensation and traveling expenses shall be approved by the president and secretary of the board. It shall be the duty of said board to make a report of their proceedings to the governor annually on or before the 15th day of November, which report shall include an account of all moneys received and disbursed by them.

"SEC. 6. Any person shall be regarded as practicing medicine and surgery within the meaning of this act who shall prescribe, or who shall recommend for a fee, for like use, any drug or medicine, or perform any surgical operation of whatever nature for the cure or relief of any wounds, fracture, or bodily injury, infirmity or disease of another person, or who shall use the words or letters 'Dr.,' 'doctor,' 'M. D.,' or any title in connection with his name which in any way represents him as engaged in the practice of medicine and surgery; but nothing in this act shall be construed as interfering with any religious beliefs in the treatment of disease, provided that quarantine regulations relating to contagious diseases are not infringed upon. All persons who practice osteopathy shall be registered and licensed as doctors of osteopathy, as hereinbefore provided, but they shall not administer drugs or medicines of any kind nor perform operations in surgery. This act shall not apply to any commissioned medical officer of the United States army, navy, or marine service, in the discharge of his official duties; nor to any legally qualified dentist, when engaged in the legitimate practice of his profession; nor to any physician or surgeon who is called from another state or territory in consultation with a licensed physician of this state, or to treat a particular case in conjunction with a licensed practitioner of the state, and who does not otherwise practice in the state. Nor shall anything in this act apply to the administration of domestic medicines nor to prohibit gratuitous services; provided, any person holding a diploma issued by an optical college, and who has studied the anatomy of the eye and contiguous parts, human physiology and natural philosophy for at least six months, under a competent teacher, and who shall pass examination satisfactory to the State Board of Medical Examination and Registration, shall be eligible to register as an optician or doctor of optics, and shall be otherwise governed by this act so far as the same is applicable.

"SEC. 7. From and after the 1st day of September, 1901, any person who shall practice medicine and surgery or osteopathy in the state of Kansas without having received and had recorded a certificate under the provisions of this act, or any person violating any of the provisions of this act, shall be deemed guilty

of a misdemeanor, and upon conviction thereof shall pay a fine of not less than fifty dollars nor more than two hundred dollars for each offense, and in no case wherein this act shall have been violated shall any person so violating receive compensation for services rendered. It shall be the duty of the secretary of the State Board of Registration and Examination to see that this act is enforced.

"SEC. 8. Any person who shall swear falsely in any affidavit or oral testimony made or given by virtue of the provisions of this act or the regulations of said board of registration shall be deemed guilty of perjury.

"SEC. 9. Chapter 68 of the Session Laws of 1870 is hereby repealed.

"SEC. 10. This act shall take effect and be in force from and after its publication in the official state paper.

"Approved March 1, 1901.

"Published in official state paper March 22, 1901."

At the last meeting of the State Board of Health, I was instructed to ascertain the standing of the Eclectic Medical University, of Kansas City, Mo., and report the result to this meeting of the board. I am advised by the State Board of Health of Missouri that the Eclectic Medical University has not been recognized by the State Board of Health of Missouri, but that, if they meet with the necessary requirements, they will be recognized next year.

I am pleased to be able to report that the recent legislature has given our Board of Health more support and recognition than any legislature for a number of years. Your secretary requested the ways and means committee of the house to allow \$100 more for the general expenses of the board; \$300 additional for special sanitary work, making that fund \$800 instead of \$500; also placing the clerk and stenographer of the board on a salary of \$45 per month, and appropriate that amount for that purpose; also \$5000 was requested for a contingent fund, to be used as directed by chapter 74 of the Session Laws of 1893, which makes it the duty of the State Board of Health to protect the borders of the state against the introduction and spread of contagious diseases. All these requests were granted by the ways and means committee, and, eventually, the appropriations were made. Any amount from the \$5000 contingent fund is made payable upon the order of this board, approved by the Executive Council. I think our board is to be congratulated upon securing these concessions.

The following reports have been received from the auxiliary members of the board during the past quarter:

"*Dr. J. W. Simmons, Sharon Springs, Kan.:*

"FEBRUARY 8, 1901.

"DEAR SIR—The following is the result of the analysis of the sample of water received from you on February 2:

	<i>Parts per million.</i>
Solids.....	758.0
Loss on ignition.....	118.0
Residue.....	460.0
Chlorine.....	19.2
Free ammonia.....	.026
Albuminoid ammonia.....	.154
Nitrogen as nitrites.....	none
Nitrogen as nitrates.....	.622
Hardness.....	145.2

"From an examination of these results, there is nothing to indicate that the water is contaminated. By comparison of the figures, especially of the free and albuminoid ammonia, it will be noticed that the water is of a much better character than the sample received some weeks ago. The chlorine being about the same would indicate that this might be the normal amount for that region.

Yours sincerely, E. H. S. BAILEY."

"MARCH 4, 1901.

"Mr. L. W. Dillman, Superintendent Empire City Water-works:

"DEAR SIR—The following is the analysis of the sample of city water received from you some days ago:

	Parts per million.
Solids on evaporation.....	282.0
Loss on ignition.....	77.0
Residue.....	205.0
Chlorine.....	5.87
Hardness.....	158.0
Free ammonia.....	.03
Ammonia, albuminoid.....	.042
Nitrogen as nitrites.....	none
Nitrogen as nitrates.....	"

"In addition to the above, I have examined the water for zinc and lead, with the following results;

"Zinc, 0.0015 grams per liter or .087 grains per gallon.

"Lead, a very slight trace, practically none.

"Manganese, a slight trace.

"The quantity of zinc is very small, but it is of importance to recognize that the water does contain a little of this metal.

"The amounts of free and albuminoid ammonia are low, and would seem to indicate that the water is not contaminated in any way by organic matter. Especially is this true when we consider the practical absence of nitrates and nitrites.

"I should be glad to give any other information that I can as to the quality of the water, as far as it can be gathered from this analysis.

Yours sincerely, E. H. S. BAILEY.

"I have reported bill for analysis to the State Board of Health.—E. H. S. B."

"TOPEKA, KAN., February 28, 1901.

"Wm. B. Swan, M. D., Secretary State Board of Health:

"SIR—I would respectfully report the result of your laboratory examination in the case sent you by Dr. Otis Orendorff, of Yates Center, which you referred to me on the 21st. Doctor Orendorff is the newly appointed health officer of Woodson county. He has been informed of some twenty cases of throat disease, and three or four have died, diagnosed 'membranous croup.' I examined the first specimen sent and found it negative; that is, no Klebbs-Löffler bacilli. But I sent him some sterile tubes with swabs, requesting another case in his practice. Yesterday I received a swab, and the culture showed diphtheria, without doubt. In a letter, the doctor tells me the case was a child five years of age, now doing well under antitoxin. With your permission, I telegraphed him the result of examination, and also mailed a letter explanatory.

"I should judge from his letter that, now they understand what they are dealing with, they will stop the epidemic with the promptness desirable.

Very truly yours, C. E. MUNN, M. D., State Bacteriologist."

REPORT OF WELL AT 410 WESTERN AVENUE, TOPEKA, KAN.

Referred by Dr. W. B. Swan, Secretary State Board of Health.

"The well is in a depression, is twenty feet deep, stoned up, properly curbed, and protected fairly. Ground-water here is high. The supply unfailing for many years. City sewer at least 200 feet away. Nearest privy vault 100 feet distant. Possible pollution from surface would come from sink slopes in back yard, the well being near back door. The premises owned by L. Macray (colored). Water always considered good. Neighbors use it; some believe it 'laxative.' No important sickness (typhoid) in twenty years. By examination, free ammonia,

none; albuminoid ammonia, .19 (standard should be .10 or .12 parts per million); chlorine, 7.5 parts per million (or about 12 grains per gallon) (excess); nitrites almost *nil* (a trace). Hardness in carbonate of lime, $3\frac{1}{2}$ Clark's test, or $3\frac{1}{2}$ grains lime per gallon. Same day city tap water 13 grains per gallon.

"This water is a fair specimen, but better than the average of the shallow wells of Topeka. It is a common ground-water well, not especially contaminated, but carries an excess of salt and nitrogenous organic matter. It is clear, odorless, and tasteless, and a little or no sediment. Microscope shows nothing important. By bacteriological examination, I find nothing suspicious—no gas product with buillon—few colonies on gelatine.

"I believe the water wholesome for drinking, and, by its softness, valuable for laundry and domestic uses. Such waters, in my opinion, should be everywhere replaced by city water-supply—yet not bad enough to 'condemn.'

Respectfully, C. E. MUNN, M. D., *Analyst*.

"Analysis made February 2 and 4, 1901."

Respectfully submitted. W. B. SWAN, *Secretary*.

SECOND QUARTERLY (ANNUAL) MEETING.

TOPEKA, KAN., June 4, 1901.

To Drs. B. J. Alexander, president, J. M. Minick, G. E. Locke, A. S. Gish, J. B. Dykes, G. W. Hollembeak, S. J. Crumbine, Chas. Lowry, and R. J. Morton:

DEAR DOCTORS—You are hereby notified that the annual meeting of the Kansas State Board of Health will be held in the office of the secretary, at the state-house, in the city of Topeka, on the 13th day of June, 1901, at two o'clock P. M.

Please acknowledge receipt of this notice, and oblige, Very truly yours,
B. J. ALEXANDER, M. D., *President*. W. B. SWAN, *Secretary*.

TOPEKA, KAN., June 13, 1901.

The State Board of Health met in annual session in the office of the secretary, and was called to order at two o'clock P. M. of this day by Dr. B. J. Alexander, president of the board.

Members present: Doctors Minick, Alexander, Hollembeak, Locke, Gish, Crumbine, and Lowry. Absent: Doctors Morton and Dykes. Member of the advisory board present: Dr. C. E. Munn, bacteriologist.

The first in order of business was the reading of the minutes of the last meeting, which were approved as read.

The secretary then offered his report of the work of the board for the past quarter, as well as a brief summary of the important work done during the year. The report of the secretary was, on motion, adopted by the board and ordered placed on file.

A general discussion of the prevalence of smallpox, means of restriction and reports as made by physicians was held at length.

Dr. J. M. Minick reported the arrest of a physician living in Wichita for failure to report a case of smallpox, and his subsequent

trial and fine of fifty dollars, after which said physician appealed the case to the supreme court.

Another interesting report was of an outbreak of smallpox in a hotel wherein were twenty-one people, including one physician, who pronounced the case "itch." The entire number of inmates were taken to the pest-house, an enclosure 300x200 feet, containing three departments—one for the sick, one for the convalescent, and a row of detached buildings, forming the third department, for "suspects." The last-named was separated by no line of demarkation, and, should the said "suspects" wish, could mingle with department No. 2, the convalescent. However, on reliable authority, only two people out of several hundred were ever known to have contracted the disease from departments 1 or 2. The physician, who was a resident in the hotel and who was confined with the "suspects," swore out a writ of *habeas corpus*, and the judge, after due consideration, decided that there was more liability for the contracting of the disease by department No. 3 from departments 1 and 2, on account of their proximity, than there would be if the former residents returned to the hotel. As a result of this decision, those from other portions of the city and county are inclined to resent the confinement, and the board of health fear an infringement of the rules and the law, which would be the means of spreading the disease. Hence the local board of health has appealed said case to the supreme court, and, through Doctor Minick, asked aid from the State Board of Health for their board.

It was moved by Doctor Lowry, and seconded by Doctor Crumbine, that the State Board of Health, through its secretary, request the attorney-general to assist the city of Wichita when these cases come up for hearing in the supreme court; also, that the secretary notify Doctor Shultz, president of the local board of health of Wichita, of the action of the board in the matter. Carried.

In response to the request of the board, the secretary gave as his opinion that it was the duty of the city of Wichita to provide suitable buildings for pest-house, with departments detached.

Rule 29 of the rules of the state board was ordered stricken out, as said rule is now embodied in the new medical law.

On motion, which was carried, the bill of four dollars for the *Sanitarian* was allowed.

The annual election of officers for the board was the next in order of business, and Doctor Crumbine nominated Dr. G. W. Hollembeak for president. Doctor Locke named the present incumbent, Dr. B. J. Alexander, as his nominee. Doctor Alexander, in a few well chosen words, expressed himself as entirely satisfied with any action the board might take in the matter of the election of president.

A ballot being taken showed five votes cast, neither of the nominees voting, of which number Doctor Hollembeak received four and Doctor Alexander one, thereby electing Doctor Hollembeak president of the board.

The following motion was made and carried: "That this board return their thanks to Doctor Alexander for the efficient manner in which he has presided over the business of the board."

The election of secretary was then in order, and Doctor Minick nominated the present secretary, Dr. W. B. Swan, for reelection.

No other nominations being made, the motion was made and carried that the rules be suspended and Doctor Swan be unanimously elected secretary of the board.

Doctor Swan was declared secretary by the president, after which Dr. S. J. Crumbine expressed the sentiment that it was a very appropriate time for the board to express their appreciation of the very efficient work of the secretary, who had, at great personal sacrifice, promoted the work and usefulness of the board. The following motion was made and carried:

"Moved that it be the expression of this board that we heartily commend Doctor Swan for the work he has done."

Dr. C. E. Munn, bacteriologist of the board, having received permission of the chair to address the board, expressed his gratification over the work of the secretary and his reelection.

The election of members to fill vacancies on the embalmers' examining committee of those whose terms expired at this annual session was then taken up.

No applications for the vacancy created by the member from Abilene, Mr. Geo. S. Upshaw, or the member from Hiawatha, Mr. J. B. Hinthorn, were received. Three applications were presented from the city of Topeka for the vacancy made by the expiration of Mr. Barkley's term, as follows: Mr. Geo. Stoker, Mr. E. O. DeMoss, and Mr. Barkley.

Nominations were made as follows for the Barkley vacancy:

Mr. Barkley, by Doctor Minick; Mr. DeMoss, by Doctor Hollembeak.

Doctor Minick offered a few remarks in favor of his nominee, Mr. Barkley, urging his election from several standpoints, chief of which was his faithful service in the civil war.

The president declared the nominations closed.

A ballot showed seven votes, of which Mr. Barkley received one and Mr. DeMoss received six. The president declared Mr. DeMoss elected.

The vacancy caused by the expiration of Mr. Upshaw's term was

next considered, and Doctor Gish nominated Mr. Upshaw for reelection. Doctor Lowry nominated Mr. Barkley for the Upshaw vacancy. A ballot being taken showed seven votes, Mr. Barkley receiving four and Mr. Upshaw three. Mr. Barkley was declared elected.

Nominations again being in order, Doctor Minick nominated Mr. Hinthorn.

It was moved, seconded and carried that the rules be suspended and the secretary be instructed to cast the vote of the board for Mr. Hinthorn, after which the president declared Mr. Hinthorn elected.

The secretary reported only \$48.54 in fund No. 3 (expenses of board), and \$146 in fund No. 2 (sanitary fund).

It was moved that Doctor Hollembeak and Doctor Locke be a committee to interview the auditor and confer upon the financial situation, and report. This motion received a second and was carried, and the president ruled that the board take a recess until the committee return.

The committee composed of Doctors Hollembeak and Locke having returned, the board was called to order to hear the report of said committee. The chairman, Doctor Hollembeak, reported that the attorney-general decided the expenses of the board could not be paid from the sanitary fund. However, the auditor decided it would be best for the entire amount of the expenses to be entered on the vouchers and prorate them. This was done.

A speech from the president elect was then called for by the board, and with a few well-chosen words Doctor Alexander relinquished the chair, and Doctor Hollembeak requested the board to repair to the office and laboratory of Dr. C. E. Munn, bacteriologist of the board, to inspect tubercular specimens, stating that would probably be of more interest than anything which he might say.

Doctor Crumbine asked for advise concerning the erection of a new hospital building at the State Soldiers' Home, at Fort Dodge, said hospital to be built on the banks of the Arkansas river. Doctor Crumbine reported it to be a very bad situation, and asked the board to take some action in having it erected in a suitable place. The secretary read the law on the subject, and said the sanitary engineer could be sent to investigate and report to the board. Doctor Crumbine then said that if the advice which he had given the managers of the State Soldiers' Home was not taken he would notify the board and they could then act in the matter.

It was moved that the secretary be authorized to purchase 100 boxes for specimens of tubercular sputum. Carried.

Mr. Hinthorn, secretary of the embalmers' examining committee, in a speech, thanked the board for his reappointment, and then re-

ported that communications have come to the committee that undertakers over the state do not observe the rules, and asked the board to devise some means for the revocation of license, or compel undertakers to do their work properly.

It was moved that the secretary of the embalmers' examining committee be requested to correspond with those who are complained of, and remind them that their licenses can be revoked, and will be, unless they do their work properly, and, upon second offense, application be made to the State Board of Health to revoke certificate. Carried.

The entire advisory board which served during the past year was reelected by acclamation, and are as follows: S. W. Williston, M. D., sanitary adviser, Lawrence; F. O. Marvin, A. M., sanitary and civil engineer, Lawrence; E. H. S. Bailey, Ph. D., chemist, Lawrence; C. E. Munn, M. D., bacteriologist, Topeka.

The president announced the following standing committees:

1. *On heating, lighting, ventilation, and general sanitation.*—Doctors Morton, Dykes, and Gish.
2. *On epidemic and endemic diseases and quarantine.*—Doctors Locke, Lowry, and Alexander.
3. *On topography, meteorology, hygiene, and inspection of public, state and charitable institutions.*—Doctors Minick, Crumbine, and Locke.
4. *Water sources, drainage, and disposal of substances dangerous to public health.*—Doctors Dykes, Lowry, and Gish.
5. *Special sources of danger to life and health.*—Doctors Gish, Morton, and Minick.
6. *Adulteration of foods, drugs, and drinks.*—Doctors Alexander, Crumbine, and Dykes.
7. *Vital statistics, registration, and nomenclature.*—Doctors Crumbine, Minick, and Morton.
8. *Finance and executive.*—Doctors Lowry, Morton, and Alexander.

The following bills were allowed and paid:

	<i>Allowed. -</i>	<i>Paid.</i>
Dr. B. J. Alexander	\$8 90	\$5 35
Dr. A. S. Gish.....	5 90	3 44
Dr. J. M. Minick.....	15 50	9 30
Dr. S. J. Crumbine.....	21 53	12 91
Dr. G. W. Hollembek.....	23 40	14 02
Dr. G. E. Locke.....	4 90	2 94
Totals.....	\$80 13	\$47 97

W. B. SWAN, M. D., *Secretary.*

SECRETARY'S REPORT.

Mr. President and Members of the Board:

GENTLEMEN—Our time during the past quarter has been largely occupied by giving general information concerning the new medical law of Kansas to the many inquirers, and reading the proof of the annual report for 1900. The manuscript for this report was ready for the state printer at about the usual time, but on account of the publication of the session laws and the journals of both houses of the legislature the publication of our report was greatly delayed. It is now ready for distribution, but on account of shortage of funds it cannot be sent out until after the 1st of July, when the new appropriation will be available. The report of this board for 1900 is the last which will be published until 1902, as the last legislature amended the law, so that hereafter the report will be published biennially instead of annually. Our board was not the only one affected by this change, as the reports of the following state departments will hereafter be issued biennially instead of annually: Commissioner of labor, superintendent of insurance, the State Horticultural Society, and secretary of mine industries. I protested to the ways and means committee of the house against this contemplated change, stating that a health report published once in two years would lose all its valuable features, so far as public health is concerned. But the incentive on the part of the legislature for this change was both an economical one and also to have a uniform system of reports, as most of the state officers make biennial reports.

As our report hereafter will be issued only once in two years, its character will be somewhat changed. The tables of vital statistics will probably be omitted, because some of them, being two years old, would practically be valueless. It is perhaps justly considered by some a waste of public money to publish at state expense many of the voluminous state reports, consisting largely of statistics. As this seems to have been the thought of the legislature when it made this change, we will try to govern ourselves accordingly, and have future reports contain only the business transacted by the board and such reports of sanitary matters as are valuable from the standpoint of public health, and such vital statistics as may seem absolutely necessary and valuable to the health interests of the state. All unnecessary and useless tables will either be omitted or condensed in form.

The general health of the state during the months of March, April and May has been exceptionally good. Smallpox, with the advent of warm weather, shows a marked decrease in the number of cases. During March there were reported to this office 1612 cases and eight deaths; during April, 1048 cases and eight deaths; during May, 741 cases and four deaths. The smallpox bulletins published by this office during the present winter show a marked increase over last winter in the number of cases; but I believe this to be only apparent and not real, because our reports this winter have been received more promptly and have been more complete. The counties of Phillips, Crawford and Cherokee have probably had more smallpox this year than last. The new quarantine law which was passed at the last legislature is responsible for the better reports received by this board. Physicians and health officers are, in general, obeying the law; hence we are getting better reports. Prior to the passage of this health law, we had no legal authority which could reach the rural districts, with reference to quarantine. Under the new law, we can as readily reach the most rural districts as the territory under municipal government. Having a more stringent quarantine law,

I hope, in the early fall, to be able to impress upon all physicians and health officers of the state the necessity of its rigid enforcement, so that smallpox may be readily controlled and, if possible, stamped out.

It has been necessary for the secretary to go to Manhattan and Abilene during the present quarter on smallpox investigations. On May 7 a request came from Doctor Everson, health officer of Pratt county, asking me to go to Pratt to assist in determining the diagnosis of an eruptive disease existing there. It being impossible for me to go at once, I wired Doctor Crumbine to go and represent the state board and give Doctor Everson what assistance he could. Doctor Crumbine's report is as follows:

"DODGE CITY, KAN., May 9, 1901.

"*Dr. Wm. B. Swan, Secretary, Topeka, Kan.:*

"DEAR DOCTOR—As per your wire of the 7th inst., I went to Pratt and reported to the health officer, Doctor Everson, and with him visited seven houses, each containing from one to four cases of smallpox. Most of the cases are very mild, but one, a married woman who has never been vaccinated, presents in a marked degree the characteristic features of smallpox, so there can be no mistake in the diagnosis; and as the source of infection is from the mild cases, and what had been called in the first instance chicken-pox by one of the local physicians, it leaves no reasonable doubt of the nature of the mild, walking cases. I found the physicians and people divided in opinion concerning the nature of the disease; therefore, the quarantine measures of Doctor Everson were laxly carried out, and in one case wilfully violated; and lacking the strong force of public opinion, the health officer was almost powerless to do anything.

"In an interview with the mayor, county attorney, members of the school board, and one of the local preachers, I told them that the schools and churches should be closed for at least two weeks, or until such time as was necessary to determine the outcome of the numerous exposures which were due to mistaken diagnosis; and further enjoin them that they must stand back of their health officer in all his orders, and see that the officers enforce a rigid quarantine of all infected houses, including a railway boarding-house which I think is under suspicion, as several of those who are now sick had been boarding there, under penalty of having the State Board of Health quarantine their city. When this phase of the matter was presented, they got to work at once, and I assure you the atmosphere of Pratt was very much improved when I left the next morning. Doctor Dix, who claims to be a homeopath physician, is the main one who is causing the health officer trouble; and I would suggest that you write him a letter, instructing him to report all his contagious diseases to Doctor Everson and assist in carrying out the quarantine. I think he will then gracefully fall in line and do his duty.

Fraternally submitted.

S. J. CRUMBINE, M. D."

As Doctor Crumbine suggested, I wrote Doctor Dix, telling him that Doctor Crumbine had reported to me the existence of smallpox in Pratt, and asked him to assist Doctor Everson in making an effectual quarantine. Having heard nothing more from Pratt, I presume they are having no further trouble.

As Governor Stanley appointed Dr. S. W. Williston, of this board, a member of the new Board of Medical Registration and Examination, Doctor Williston has resigned from this board, and the governor has appointed Dr. J. B. Dykes, of Lebanon, Smith county, as his successor. Governor Stanley appointed the following physicians as members of this new board: Regulars, S. W. Williston, M. D., Lawrence; O. F. Lewis, M. D., Hepler; Geo. F. Johnston, M. D., Lakin.

Eclectics, F. P. Hatfield, M. D., Grenola; E. B. Packer, M. D., Osage City. Homoeopaths, D. P. Cook, M. D., Clay Center; Henry W. Roby, M. D., Topeka. Governor Stanley authorized me to call the first meeting of this new board at some date which would be suitable to a majority of its members. I issued a call for the first meeting for the 21st of May, which was satisfactory to the board. They met in this office, and organized by electing Geo. F. Johnston, president; E. B. Packer, vice-president; and Henry W. Roby, of Topeka, secretary. As the new medical law removes the practice of medicine entirely from the jurisdiction of this board, I would advise that the members of this board, so far as they are able, refer all matters pertaining to the practice of medicine to H. W. Roby, secretary of the new board.

The following report has been received from the sanitary and civil engineer of the board:

"LAWRENCE, KAN., May 7, 1901.

"*Dr. Wm. B. Swan, Secretary State Board of Health, Topeka, Kan.:*

"DEAR SIR—In a recent visit to the city of Osawatomie, I examined into the proposed means for supplying that town with a public water-supply, and consulted with the city authorities and their engineers, Messrs. Burns and McDonnell, relative thereto. The engineers seem to have investigated the probability of securing an underground supply, with the result of turning their attention to the Marais des Cygne river as the only adequate source. The location for the intake was placed at some distance above the city, and at a point above the natural drainage of the ground now covered or that will be covered by town residences for many years to come.

"Two samples of the river water were collected by the engineers and sent here for analysis—one representing the water at ordinary stage, after a period of time that had been free from rainfall; the other representing the water as it is after a very heavy rainfall and while it is carrying a large amount of suspended matter. The first probably shows the water at its best average condition, and the latter probably indicates about the worst condition that it reaches. Copies of these analyses are attached to this report.

"As the river water in its raw state is not to be considered as a safe water for public use, some method of treatment was insisted on by the engineers, and I was glad to have the opportunity to back up their judgment in the matter. Copies of the plans and specifications have been sent me for examination since their final form was decided upon, and they met with my approval as to the sanitary matters involved.

"The river water is to be first allowed to quietly settle for at least twenty-four hours in a sedimentation basin, and then is to be filtered by mechanical filters, operated with a coagulant.

"The specifications require certain tests of the sanitary efficiency of the filter plant, parts of which are quoted below:

"The filter shall have a capacity such that, when running at the rate of 500,000 gallons of water per twenty-four hours, the rate of filtration shall not exceed 125 million gallons per acre per twenty-four hours, and the purification attained shall be as follows: It shall furnish a clear and satisfactory effluent, and shall remove at least ninety-seven per cent. of the bacteria in the applied water with the use of the average amount of sulphate of alumina equal to 1.6 grains per gallon.

"The filtered water shall contain no undecomposed coagulant and no more aluminum than the applied water. It shall not show an acid reaction nor an

alkalinity greater than the applied water. The amount of wash water required shall not exceed an average of six per cent. of the filtered water.

"To determine whether these conditions have been fulfilled, a competent bacteriologist will be appointed by the consulting state sanitary engineer, to act under the direction of the State Board of Health, who shall make such tests as he may deem necessary, covering a period of four weeks, at any time within one year from the date of the completion of the water-works plant, the contractor being notified ten days in advance of the beginning of such tests. The expense of these tests, not exceeding \$150, shall be included in the cost of the filter plant.

"The filter shall be equipped with an automatic regulating device which will regulate the rate of filtration, so that variation in the same will not exceed two per cent. of the rate fixed and desired at any time."

"Under these specifications, it will devolve upon the state board, acting through its engineer, to appoint a suitable person to conduct these tests, but without any expense to the board.

"Below are copies of the analyses of the river water. These were made in the chemical laboratories of the University, and were certified to by the head of the chemical department, Prof. E. H. S. Bailey.

ANALYSES OF MARAIS DES CYGNES RIVER WATER, OSAWATOMIE, KAN.

Sample taken at low water, March 6, 1901.

	<i>Parts per million.</i>
Total solids	354.0
Loss on ignition	50.0
Residue	304.0
Chlorine	10.76
Hardness	180.0
Free ammonia	62.0
Albuminoid ammonia .....	.246
Nitrogen as nitrites	none
Nitrogen as nitrates	"

Sample taken at high water, March 23, 1901.

	<i>Filtered through filter paper.</i>	<i>Unfiltered.</i>
Total solids	365.0	1,650.0
Loss on ignition	114.0	232.0
Residue	252.0	1,418.0
Chlorine	9.84	.....
Hardness .....	.....	100.0
Free ammonia .....	.112	.206
Albuminoid ammonia .....	.778	2.01
Nitrites	none	.....
Nitrates	"	none

Respectfully submitted.

F. O. MARVIN."

The special feature of this report which I desire to commend is that provision in the specifications which requires certain tests of the sanitary efficiency of the filter plant to be made by and meet the approval of the sanitary engineer and bacteriologist of the State Board of Health; also that the expense of making these tests be included in the cost of the plant. It is the duty of the State Board of Health to see that the water supplied to the municipalities of the state is as pure as can possibly be obtained.

Dr. C. E. Munn, bacteriologist of the board, submits the following report:

"TOPEKA, KAN., June 10, 1901.

"Wm. B. Swan, M. D., Secretary State Board of Health, city:

"DEAR DOCTOR—Since my last report I have had but one request for laboratory analysis in state work. And aside from this, my employment has been routine as usual. On the 12th of May, Dr. S. J. Crumbine, of Dodge City, member of the State Board of Health, forwarded to me direct a specimen of sputum from a case residing at Ford, Kan. Examination showed the presence of tubercle bacilli, and by the number of elastic fibers I judged the case advanced. By your

authority, I reported this direct to Doctor Crumbine. These cases belong to the class of infectious and communicable diseases, and to my mind should be the subject of consideration by your board. I intend, with your approval, to state my views to the board on this subject, "Tuberculosis of the Lung," at the board meeting on the 13th inst.

"Very respectfully, your obedient servant, C. E. MUNN, M. D.,
Bacteriologist State Board of Health."

The following reports have been received from the secretary and treasurer of the embalmers' examining committee:

"HIAWATHA, KAN., June 7, 1901.

"To the State Board of Health:

"GENTLEMEN—I beg to make the following brief report for the embalmers' examining committee: The committee met at the call of President Gates in Kansas City, Kan., on April 26, for the purpose of arranging for an examination to be held just following the Kansas funeral directors' meeting, which will be held at Abilene, Kan., June 25 to 27. Members of the committee present were H. W. Gates, president, Geo. S. Upshaw, and J. B. Hinthorn. Messrs. Barkley and Doyle were detained at home on account of business interests. The committee arranged a list of thirty questions which were submitted to your secretary, W. B. Swan, for his approval. Many other minor points were discussed by the committee, which are unnecessary to be reported here. The expense of this committee meeting was defrayed by the members individually. The secretary was instructed to have such blank reports printed as were needed by the committee in carrying on the examination, also to have printed 5000 yellow shipping pasters, and to send out notices of renewal to those holding certificates. Amount of renewal fees received to date, \$161. Two hundred and sixty-four letters containing blank applications have been mailed to the unlicensed undertakers of the state. This in addition to the regular correspondence of the office. Our next examination will be held June 28, at Abilene, Kan.

Respectfully submitted. J. B. HINTHORN, *Secretary.*"

"To the State Board of Health:

"BELLEVILLE, KAN., June 5, 1901.

"GENTLEMEN—As treasurer of the embalmers' examining committee, I submit the following report to your honorable board:

Balance on hand last report, September 10, 1900.....	\$41 04
Received of J. B. Hinthorn, secretary, May 15, 1901.....	100 00
Balance on hand at this date.....	\$141 04

Respectfully submitted. J. M. DOYLE, *Treasurer.*"

We have had the following correspondence concerning the disposal of sewage from the court-house of Coffey county:

"BURLINGTON, KAN., June 5, 1901.

"State Board of Health, Topeka, Kan.:

"GENTLEMEN—Our county has constructed a stone court-house costing about \$40,000 and the question of sewerage is a matter which our county commissioners are now considering. The architect has recommended a cesspool nine feet wide, twelve feet long, and sixteen feet deep; the sides and ends to be cemented to a depth of twelve feet; the remaining four feet of sides and ends and the bottom to be of porous brick, and nine inches thick.

"The stratum underlying the surface of the ground is from fifteen to twenty feet of clay, under which is a stratum of water-bearing sand and gravel overlying

a stratum of rock. The distance from the surface to the rock is probably between twenty and twenty-five feet. The nearest well is on the court-house grounds, and about 175 feet away. There is no other well and no residence within a radius of about 300 feet from the place of location of the cesspool.

"Will you kindly advise us whether or not there is any danger of any wells becoming contaminated from this course. And also give us your opinion as to whether or not the arrangement as above indicated is a proper one under the circumstances from a sanitary standpoint. Yours truly,

S. D. WEAVER, *County Attorney.*

"LAWRENCE, KAN., June 8, 1901.

"Dr. W. B. Swan, *Secretary State Board of Health, Topeka, Kan.:*

"MY DEAR DOCTOR—Under the conditions as stated in the letter of June 5, by Mr. S. D. Weaver, of Burlington, Kan., I have no hesitation in condemning the methods proposed for the disposition of the sewage from the county court-house as unsanitary. The underlying porous stratum would in all probability allow the percolation of sewage from the cesspool into adjacent wells, even at the distance of 300 feet. I can of course make no suggestion as to the proper method to be followed without a more complete knowledge of the conditions. This could only be obtained through a personal inspection, the time for which I cannot give at present. I have work to do here which will keep me occupied up to the time when I leave for the East, to meet an engagement at Buffalo, about the 25th inst. Respectfully, F. O. MARVIN."

"TOPEKA, KAN., June 10, 1901.

"S. D. Weaver, *County Attorney, Burlington, Kan.:*

"DEAR SIR—In reply to your favor of the 5th inst., I transmit the enclosed letter from Prof. F. O. Marvin, the sanitary engineer of the State Board of Health. You will note that he condemns the method proposed by the architect. I also add my condemnation to his. If it be possible, let this matter rest until Professor Marvin can make the necessary investigation and report thereon. It is necessary for Professor Marvin to go to Buffalo the 25th of this month, to be gone for some little time. If you can wait until Professor Marvin returns, the State Board of Health will, through its sanitary engineer, make an investigation concerning the best method of disposing of the sewage from the county court-house, and will do this without any expense to your county. Kindly advise me if you can wait a few weeks.

Very truly yours,

W. B. SWAN, M. D., *Secretary.*"

On the morning of the 11th inst. I received a telegram from Clafin, Barton county, from a party by the name of Wilson, stating that smallpox existed in five families and in one hotel in Clafin and that the county officials would not or could not cope with the situation. Knowing nothing about Mr. Wilson, and being unable to find out anything about his reliability, I telegraphed R. L. Hamilton, of Clafin, asking him if this report were true. Later in the day Mr. Hamilton wired me that smallpox existed in Clafin in seven families, that the authorities were trying to act, but that no attention was being paid to the quarantine. Upon the receipt of this reliable information, I wired E. E. Morris, who I supposed was still county health officer of Barton county, calling his attention to the new quarantine law, and asked him to see that the same was rigidly enforced and advise me of the situation as soon as possible. In reply to this telegram, Doctor Morrison stated that his term had expired; that R. H. Meade, the present incumbent, was away doing postgraduate work.

That being the situation, of course there was no body in authority and no one

to represent this board. I therefore took the matter in my own hands, and yesterday morning arrived in Great Bend, had the sheriff call a meeting of the local board of health, and then drove to Claflin, twenty-four miles distant. I found about fifteen cases of smallpox in the town, some of them quite severe and practically no quarantine. I remonstrated with the citizens and told them it was absolutely necessary for every family to be quarantined where smallpox existed. Returning to Great Bend, I met the board of county commissioners and insisted that they appoint deputy health officers until Doctor Meade returns, so that the proper quarantine would be established and the spread of the disease arrested. I left the county board in session last night, as it was absolutely necessary for me to catch the evening train to be at this meeting to-day. I am advised this morning that the board of county commissioners of Barton county last night appointed Doctors Morrison and Haas as deputy health officers, to take charge of the situation in different parts of the county and see that all cases of smallpox are properly quarantined. I think there will be no further trouble in Barton county. As soon as the citizens realize that we have a law upon this subject, they will be willing to obey its provisions.

I desire to call the attention of the board to certain recommendations which I made to the governor, for the State Board of Health, concerning the needs of medical legislation in this state. These recommendations were made prior to the meeting of the last legislature, and will be found on pages 9, 10 and 11 of the report for 1900, which has just been issued. There were six recommendations made, as follows:

1. The creation of a State Board of Medical Registration and Examination.
2. The creation of an emergency fund, to be at the disposal of the State Board of Health, to be used in preventing the introduction of contagious diseases from other states.
3. An amendment to our medical law enacting into statutes certain rules of the State Board of Health.
4. The enactment of a law providing for the collection of the vital statistics of the state.
5. More authority to be given by law to the state and county boards of health, to properly handle communicable diseases and quarantine the same.
6. A larger appropriation for the use of the board.

I am greatly pleased to be able to report to you that all of these recommendations except the fourth have been enacted into law. Never in the history of the board have the recommendations of the board received such consideration at the hands of any legislature. I am sure the board can justly congratulate itself that it is being felt as a power for good in this state. Respectfully submitted.

W. B. SWAN, M. D., *Secretary.*

THIRD QUARTERLY MEETING.

TOPEKA, KAN., September 9, 1901.

To Drs. G. W. Hollembeak, president, B. J. Alexander, J. M. Minick, G. E. Locke, A. S. Gish, J. B. Dykes, S. J. Crumbine, Charles Lowry, R. J. Morton:

DEAR DOCTORS—You are hereby notified that the next regular quarterly meeting of the Kansas State Board of Health will be held at the office of the secretary, in the city of Topeka, in the state-house, on the 26th day of September, 1901, at two P. M.

Please acknowledge receipt of this notice, and oblige, Yours truly,
G. W. HOLLEMBEAK, *President*. W. B. SWAN, *Secretary*.

TOPEKA, KAN., September 26, 1901.

In response to the above call, the Kansas State Board of Health met in the office of the secretary, at the state-house, in the city of Topeka, at two o'clock on the above date, and was called to order by the president.

The roll-call showed the following members present: Doctors Hollembeak, Minick, Gish, Locke, Dykes, Crumbine, Lowry, and Morton. Absent: Doctor Alexander.

As instructed by the board at its June meeting, the secretary invited the members of the advisory board to be present at this meeting. In response to this invitation, Professors Marvin and Bailey and Doctor Williston were present. On account of sickness, Dr. C. E. Munn could not be present.

The minutes of the last quarterly meeting, which was held on June 13, were read, approved, and ordered placed on file.

The secretary then presented a report of the work of the office since the last quarterly meeting, which, upon motion, was adopted as part of the proceedings of the board, and ordered placed on file.

In the report as submitted by the secretary, a pamphlet had been prepared concerning the diagnosis, prevention, treatment and all necessary steps which should be taken by health officers and others in handling smallpox cases. After some minor amendments by the board, it was moved and carried that the secretary have 5000 of these pamphlets printed, and that a sufficient number of them be sent to the several county clerks of the state, and they be requested to send them to physicians, members of the local boards of health, to the local newspapers, and members of the boards of county commissioners.

Doctor Crumbine reported that he had been to Stormont hospital to see Dr. C. E. Munn, bacteriologist of the board, who has been sick during the past two weeks, and Doctor Munn requested that his regards be presented to the board. The board was pleased to hear of

Doctor Munn's improvement in health, and Dr. J. M. Minick moved that Doctor Lowry be appointed a committee of one to convey to Doctor Munn the sympathy of the board and the hope of his speedy recovery. This motion was seconded by Doctor Crumbine, and carried.

Under the head of new business, Doctor Gish made the following report concerning certain cesspools in Abilene: He said there were about twelve cesspools in the western part of the town. These cesspools are about thirty feet deep and the wells in the vicinity about thirty-two feet deep. The soil at the depth of from twenty to thirty feet below the surface is sandy and gravelly, and in this part of the city there is a sheet of underground water at about that depth. The well-water is used for drinking and culinary purposes. The water is becoming unwholesome and unfit for this purpose. The wells are located from 20 to 100 feet distant from cesspools. These cesspools are simply walled up with rock, like an ordinary wall. The property-owners and others desire to know what can be done to prevent their water from becoming contaminated.

Doctor Williston, sanitary adviser of the board, stated that in his judgment these cesspools should be thoroughly cemented and their contents removed at frequent intervals. Professor Marvin, our civil engineer, stated that in his opinion even cesspools which are thoroughly cemented are still a menace to health, because the cement will crack and seepage will thus follow. Some additional remarks were made by members of the board upon this subject, and then Doctor Crumbine moved that this question be referred to the sanitary board with the request that they report to the secretary their recommendations. This motion was seconded by Doctor Morton and carried.

Following the discussion of the Abilene cesspools, Professor Marvin brought up the question of the water-works and sewerage systems. Professor Marvin stated that the State Board of Health ought to have some authority in these matters which relate so closely to the public health; that this board represents the highest health authority of the state, and should have the right to demand the plans of all water-works and sewer systems about to be established, and sufficient authority to approve or disapprove of these plans. Last fall he drew up a bill, which was presented to the legislature, but as it was introduced a little late in the session it did not pass. He suggested that in due time the board take up this matter and have a good bill ready covering this subject when the legislature meets. Laws of this character are in force in Massachusetts, Ohio, New York, Pennsylvania, Wisconsin, and Michigan.

Doctor Williston suggested that the subject be taken up by the various state medical societies and by that means interest the physicians of the state. If this be done, the matter can be presented to each representative and senator of the various districts. By giving the board control over the water-supplies of the state contamination of the rivers would be prevented. He urged that the bill be gotten before the legislature early.

Professor Bailey expressed himself as being in sympathy with a law which would place the public water-supply and sewerage systems of the state under the control of the State Board of Health.

The following bills were audited and allowed :

G. W. Hollembeak.....	\$22 90
J. M. Minick.....	15 04
S. J. Crumbine.....	24 53
R. J. Morton.....	6 70
A. S. Gish.....	7 92
J. B. Dykes.....	13 16
G. E. Locke.....	5 40
Total.....	\$85 65
S. W. Williston.....	\$2 95
E. H. S. Bailey.....	2 90
F. O. Marvin.....	2 90
Total.....	\$7 75

The board then adjourned, to meet at the call of the secretary.

W. B. SWAN, M. D., *Secretary*.

SECRETARY'S REPORT.

Mr. President and Members of the Board:

GENTLEMEN—Since the last quarterly meeting of the board, June 13, no matters of great importance have been presented to the board. The general health of the state during the past quarter has been exceptionally good. At no time during the past two years have so few reports been made to this office concerning the prevalence of diphtheria, typhoid or malarial fever. In fact, there has been no epidemic disease of any character whatever. Smallpox has been on the decrease rapidly during the past warm months.

About ten days after the last meeting of the board, several complaints came to this office concerning the existence of hemorrhagic smallpox in the vicinity of the Kiowa and Comanche reservations, soon, at that time, to be opened. Realizing the danger, if this report were true, to the health interests of our state, I addressed the following letter to Hon. Charles Curtis, who was then in Washington:

"TOPEKA, KAN., June 22, 1901.

"Hon. Charles Curtis, Washington, D. C.:

"DEAR SIR—For some days past I have been making an investigation concerning the smallpox situation in the vicinity of the Kiowa and Comanche Indian reservations, which, as you know, are soon to be open for settlement by the gov-

ernment. I have some information which I consider fairly reliable, going to show that hemorrhagic smallpox exists among the Indians at these reservations. You are well aware that during the past two years we have had thousands of cases of smallpox in this state. The disease, however, has been of a very mild type, and the average mortality has not exceeded one per cent. The State Board of Health and local authorities have been doing everything in their power to stamp out this disease. Under additional and better legislation last winter, we hope during the coming winter to be able to do more effectual work along this line. I am informed that during the past few months over 200 deaths have occurred from black smallpox in the vicinity of these reservations. As you know, a large number of citizens from our state are at the present time waiting on the borders of these reservations, expecting to get claims. Probably nine out of every ten of this number will be disappointed, and probably many of them will return to their former homes in this state. If they do there is some danger of these citizens carrying the disease back to this state.

"For many reasons I do not like to ask any delay in the opening of these reservations, and yet, as a State Board of Health, we must insist that every means be used by the department to rigidly quarantine every case of smallpox which may exist in that vicinity, and that the government use every means in its power to stamp out the disease. I have tried to ascertain for a fact whether or not the smallpox existing there is of the hemorrhagic type, or simply the mild form which is so universal over the country, but as yet have not been fully able to satisfy myself on the subject.

"I would most respectfully urge that you see the department officials and urge upon them the necessity of protecting the new settlers upon these reservations, and also those who will be compelled to return to their homes. If black smallpox exists on these reservations, the government should either rigidly quarantine every case, so that there could be no further spread of the disease, or delay opening these reservations for settlement until it is absolutely sure that no further danger of spreading the disease exists.

"During the winter just passed more than \$50,000 have been spent in our state in trying to stamp out and prevent the further spread of smallpox. I desire very much to so protect our health interests as to lessen very materially this heavy burden.

W. B. SWAN, M. D., *Secretary.*"

Within a week after this letter was sent Mr. Curtis returned to Topeka and I had a personal interview with him upon this subject. He stated that the department had taken every precaution it possibly could to stamp out smallpox in the vicinity of the Kiowa and Comanche reservations, and that the report received by their agents was to the effect that no smallpox existed there. However, he had forwarded my letter to the commissioner of Indian affairs, and stated that he would forward me the reply when it came. In due time I received the following letter, which had been addressed to Mr. Curtis:

WASHINGTON, July 5, 1901.

"*Hon. Chas. Curtis, Topeka, Kan.:*

"SIR—I have the honor to acknowledge receipt of your letter, dated June 25, 1901, enclosing a communication from the secretary of the State Board of Health of Kansas relative to smallpox on the Kiowa and Comanche reservations in Oklahoma.

"In reply, I will say that the secretary's informant has greatly exaggerated in making his report. It is true that during the winter months smallpox was prevalent on the Kiowa and Comanche reservations and also among the pupils of the Riverside boarding-school, but the stringent measures adopted by the

agent, assisted by the physicians and police, have, I might say, almost entirely eradicated the disease.

"I am of the opinion that, if the disease makes its appearance after the opening of the reservation, it will be due to its having been introduced there by outsiders who may carry it from other states. Very respectfully,

W. S. JONES, *Commissioner.*"

From the above letter, I would judge that the reports which had come to me were exaggerated, and that the danger was only imaginary on the part of my informants.

Pursuant to instructions from the board at its last meeting, the secretary notified Doctor Shultz, president of the local board of health of Wichita, of the action of the board with reference to having the attorney-general assist the city of Wichita when the cases in which it is involved are called up in the supreme court. In the same letter I also requested Doctor Shultz to give me the titles of the cases, so that I could make an intelligent request of the attorney-general to assist in these cases. Getting no reply to that letter, I again, on the 21st of July, wrote Doctor Shultz, making a similar request for information concerning these cases. On July 29 I received a communication from Doctor Shultz, in which he said that a mistake had been made, as the cases had been taken to the district court instead of the supreme court. One had been settled prior to the time of writing, and he thought the other would be settled before it was reached in the district court. Doctor Shultz also thanked the board for the interest it had taken in this matter.

On June 20 I received a request by telegram from Dr. William F. Fee, county health officer of Meade county, requesting that some one be sent to determine diagnosis of smallpox. It being almost impossible for me to go at once, I telegraphed Doctor Crumbine, requesting him to go and make the desired investigation. Doctor Crumbine did so, and reported as follows:

"DODGE CITY, KAN., June 24, 1901.

"*Wm. B. Swan, M. D., Topeka, Kan.:*

"DEAR DOCTOR—In response to your telegram of the 20th, I went to Meade on the 21st and reported to Dr. Wm. F. Fee, the county health officer. I found five well-defined cases of smallpox, and two houses and the Meade hotel infected. Four of the cases were being properly and well cared for in a cottage on the edge of the town, and the fifth case was in the country several miles, having been removed there from the Meade hotel before the nature of the disease was recognized. Inquiry developed the fact that all these cases were directly traceable to infection from the hotel, and while there were no cases in the hotel at the present time, I nevertheless directed the place to be quarantined until such time as every room should be thoroughly fumigated, which the county health officer proceeded immediately to do. Doctor Fee is doing all that can be done to hold the disease in check, but as there seemed to be a sentiment among some of the citizens that the doctor's diagnosis was erroneous, and among others that the disease didn't 'amount to anything anyhow,' he was experiencing some difficulty in making the quarantine effective, but after a conference with some of the leading citizens, assuring them of the true nature of the disease, and a broad hint that their city might be in danger of quarantine, they readily fell in line and promised to stand by the doctor in any measures he might suggest. Therefore, the situation is well in hand by the local board of health, and I predict a speedy termination of the disease.

Very truly yours,

S. J. CRUMBINE."

During the last week in June many complaints came to this office concerning the character of the water being furnished to the people of Topeka by the Topeka Water Company. Thinking that in a day or two better water would be furnished, but seeing no change, on July 1 I addressed the following letter to Mr. Jesse Shaw, manager of the Topeka Water Company:

"TOPEKA, KAN., July 1, 1901.

"*Jesse Shaw, Esq., Manager Topeka Water Company, City:*

"DEAR SIR—For several days past complaints have been coming to this office concerning the character of the water which your company is furnishing the citizens of this city. If I did not know that these complaints were justifiable I would not annoy you by calling your attention to the matter, but to my knowledge the water which has been furnished for several days past by your company to the citizens of this city has been of such a character as to call forth a very loud protest. The water has been so bad that it has been impossible to use the same for laundry purposes, to say nothing about domestic uses. Before I send samples of this water to the state chemist for analysis, I desire to give you an opportunity to explain the circumstances which have caused the water to be in the condition noted, namely, nearly a perfectly red color, with a good deal of sediment, and very frequently full drops of oil floating on the surface.

"Nearly two years ago I called your attention to the character of the water which you were furnishing the citizens of this city at that time. You promised to follow out suggestions offered in that communication, but, if you did so, the character of the water furnished during the past two years has not indicated it. Your mains and laterals must certainly be full of a sedimentary deposit which is not conducive to health-giving qualities. Every time the fire pressure is placed on your mains all this sediment is stirred up, and the water is unfit for domestic purposes for hours afterwards. It does seem to me that if you would be willing to waste a little water, namely, by flushing your mains and laterals, that you could furnish the citizens of this city better water than you have in the past. I do not desire to condemn the water furnished by your company, but, unless some improvement is made in the quality of the water, the matter will certainly be called to the attention of the State Board of Health for their action.

Very truly yours,

W. B. SWAN, *Secretary.*"

Mr. Shaw did not reply to this letter, but came personally to the office and explained the conditions which gave rise to the bad water, viz., that the company, instead of pumping from 1,800,000 to 2,000,000 gallons of water daily, were at time pumping from five to six million gallons daily; that on account of the exceedingly dry weather so much more water was being used; consequently the current in the pipes was so much greater that all the deposit was being stirred up and thereby keeping the water constantly roiled. He promised, however, to have the mains thoroughly flushed, and, if possible, to wash out all the sediment, so that better water might be furnished. Within a day or two the water began to improve, and, while it has not been absolutely satisfactory, yet is a great improvement over what was furnished at the time the letter was written.

On July 8 Dr. M. S. McGrew, county health officer of Jackson county, requested me to go to Holton to assist him in making diagnosis of smallpox. On the morning of the 9th I went to Holton, but Doctor McGrew had suddenly been called to St. Joseph, saying it was impossible for him to accompany me, but had the deputy sheriff take me to the cases. The cases were twenty-two miles in the

country, and were undoubtedly smallpox. When I returned home, on the 10th, I immediately forwarded the following report to the doctor:

"TOPEKA, KAN., July 10, 1901.

"*M. S. McGrew, M. D., Holton, Kan.:*

"MY DEAR DOCTOR—As per your request of the 8th inst., I went to Holton yesterday morning, as you know. I regret, of course, that it was necessary for you to go to St. Joseph and not accompany me on this smallpox investigation. However, Mr. Haas, your deputy sheriff, took me to the family of John Keller, and I have no hesitancy in saying that the disease afflicting this family is smallpox. It is, of course, of the mild type which is prevailing in the state at the present time. However, we quite frequently have deaths from this mild form of the disease. As you well know, the disease in its severest form may be contracted from this mild form, and for that reason it is very important that every case of smallpox be quarantined and isolated, that all who have been exposed be vaccinated, and that when the disease has run its course very thorough disinfection and fumigation be made of the premises and clothing.

"In conversation with Mr. Keller, it is very easy to trace this disease directly back to the family of Doctor Noggles, of Adrian, as one of his wife's relatives had it, and from her it was scattered to these various families. When I saw Mrs. Keller yesterday she was quite sick, and probably by to-day or to-morrow she will break out with the disease. I certainly recommend to your board of county commissioners that they authorize you to use every means in your power to prevent the further spread of this disease. If necessary, you should be authorized to employ guards who should be sworn in as deputy sheriffs, and placed over these families to see that the rules of quarantine are properly obeyed. If the disease is allowed to continue now it will break out anew next winter, and your county commissioners will be under a great deal of expense to suppress it.

"If you desire any additional information concerning this matter kindly advise me, and we will help you in every way possible.

Very truly yours, W. B. SWAN, M. D., *Secretary.*"

The following report has been submitted by E. H. S. Bailey, chemist of the State Board of Health, consisting of analyses of water from Ellis and Hutchinson, Kan.:

"AUGUST 3, 1901.

"*Dr. W. B. Swan, Topeka, Kan.:*

"DEAR DOCTOR—I was away when the sample of water from Ellis (Mrs. Gaylord's well) came, but, in accordance with your request, I hasten to report to you now. The results are stated in parts per million:

Free ammonia.....	30
Albuminoid ammonia.....	2.49
Nitrogen as nitrates.....	24.48
Nitrogen as nitrites.....	trace.
Chlorine.....	17.7

"The color and appearance of the water are normal. In making a comparison of this water with standards of different kinds, it is apparent that the free ammonia is rather high for a good water, and the albuminoid is extremely high; the nitrates are also high. Although the chlorides are low, yet I regard the water as dangerous for domestic use. It contains too much organic matter.

Yours sincerely, E. H. S. BAILEY."

"SEPTEMBER 17, 1901.

"Dr. W. B. Swan, Secretary State Board of Health :

"DEAR DOCTOR—The following is the result of the analysis of the sample of water received from the Hutchinson Reformatory; the results are expressed in parts per million:

Total solids.....	543.0
Loss on ignition.....	45.0
Free ammonia.....	.062
Albuminoid ammonia.....	.32
Nitrogen as nitrites.....	trace.
Nitrogen as nitrates.....	2.83
Chlorine.....	287.5
Hardness.....	205.35

"The sample is colorless, odorless, tasteless, and free from sediment. The free ammonia is low and the albuminoid is a little high, but this, taken with the low free ammonia, leads me to consider it no indication of impurity. Taken all together, then, there is no indication from this analysis that the water contains any impurities or any injurious ingredients.

Yours sincerely,

E. H. S. BAILEY."

SMALLPOX.

During the last quarter smallpox has been reported by months as follows: June, 319 cases, with four deaths; July, 90 cases, with no deaths; August, 24 cases, no deaths.

As the last legislature passed a good quarantine law, additional responsibility has been placed upon the State Board of Health in controlling all communicable diseases. This new law is entitled "Relating to Public Health," and is found in chapter 285 of the Session Laws of Kansas for 1901. I know the board will be very glad to meet this added responsibility because at no time have we had in this state an adequate law to properly prevent the spread of contagious diseases. This is particularly true with reference to smallpox. Realizing the additional responsibility which has been placed upon the board, and also knowing that many of the health officers of our state are not fully prepared to take the necessary steps to prevent and stamp out smallpox in this state, I have deemed it wise that the health officers be instructed concerning what the State Board of Health expects from them. With this purpose in view, I have prepared the following circular concerning smallpox and how the same should be properly cared for to prevent a continuance of the epidemic which we have had during the past two years.

"OFFICE OF SECRETARY OF STATE BOARD OF HEALTH,
OCTOBER 1, 1901.

"Smallpox: its Prevention and Restriction.

"Circular issued by Kansas State Board of Health to physicians, health officers, members of local boards of health, and others. Read carefully and preserve for future reference.

"DEAR SIRs—Owing to the prevalence during the past two years of an eruptive contagious disease in many parts of the United States which presents many of the characteristics of smallpox, and yet which is so mild in character that the mortality does not average more than one per cent., many have consequently failed to properly diagnose the disease as a mild form of smallpox. On account of this failure to recognize the true character of the disease, our state has during the last two years passed through two epidemics of smallpox. It is true these epidemics have not caused the loss of many lives, but they have caused a great deal of suffering, much loss of valuable time, and the expenditure of large sums of money on the part of the state, counties, and municipalities. The disease will

undoubtedly reappear in many of the same localities during the coming winter as it has during the past two years. If any laxity is allowed many new localities will be infected. Under the new state law it becomes not only the duty of every practicing physician of this state to report all cases of smallpox to the nearest health officer, but this same obligation rests with equal force upon every citizen in whose family the disease may exist.

"Smallpox is a contagious disease, which usually can be suppressed only by the prompt action of the health authorities, assisted by the cooperation of the people. It is the duty of all health authorities to be prompt and vigorous in enforcing such well-advised measures in the care of those who may, unfortunately, become afflicted (and of their families and households) as will prevent any spread of the disease. Under no circumstances must such cases be allowed to go at large, or be sent away to escape the cost and care of their proper treatment.

"Concert of action between neighboring towns or communities, whose sanitary interests are often identical, is strongly enjoined upon the health authorities. Friction, clashing of authority, and unnecessary expense, may thus be avoided. Where there is no medical man upon a board of health, the advice and cooperation of the county medical officer should be secured; or, if this is impracticable, a competent and legally qualified physician should be employed. If a district or locality becomes seriously infected, better work will be secured, with less danger of the contagion being spread, if such district or locality be put in charge of one medical officer, instead of allowing several physicians to visit individual patients or families. Such officer should be selected not only for his medical skill and experience, but also for his knowledge and ability as a sanitary executive.

"Local boards and authorities are strongly advised against the policy of concealment. Smallpox cannot be suppressed by denying its existence. It will out, more certainly than murder. Official reticence in this is not only useless to protect commercial interests and reputation, but is in the highest degree mischievous, in that it begets false confidence which may lead the innocent and unwary into such danger as an honest announcement of the facts would have warned them to avoid. Insist upon prompt publicity in every instance.

"County and municipal health boards should report at once the presence of each case of contagious disease to the state board. Should the disease assume the proportions of an epidemic, all public assemblies, such as churches, schools, and gatherings of any kind, should be interdicted by the authorities. The law demands that this shall be done.

"When a case appears, immediately enforce strict isolation and quarantine of the patient, and this should be continued for at least two weeks after the recovery of the case, and after the crusts have all separated. When the patient cannot be removed to a hospital, but must remain in a private house, secure a room, if possible, on the uppermost floor, and remove from it all articles and furnishings which will not absolutely be needed. For a nurse, have some person who has been recently and successfully vaccinated or who has had smallpox. Keep all others away from the room. All other persons in the house and neighborhood should immediately be vaccinated.

"During the past two years many disputes have arisen, between both physicians and the laity, concerning the character of the disease. It has erroneously been called 'chicken-pox,' 'Puerto Rican chicken-pox,' 'elephant itch,' 'Cuban itch,' 'the bumps,' 'the yaws,' etc. Such contentions are both useless and dangerous. The law of this state requires the reporting of all contagious diseases dangerous to the public health. No physician who values his reputation will

deny the contagious character of the disease. Even if all cannot agree upon the name of the disease, we are agreed upon its contagious character, and under the law it becomes our duty to report the same to the nearest health officer, so that the public health may be properly protected. The following expressions from competent authorities may be of value:

"William M. Welsh, M. D., of Philadelphia, in a circular issued by the Pennsylvania State Board of Health, is quoted, in substance, as follows:

"After a careful examination, I have no hesitation in saying that the disease about Pittsburg is smallpox. It is extremely mild in character; so mild that many of the more usual symptoms are either absent or so indistinctly marked as to be overlooked. No weight should be given to the absence of the so-called characteristic smallpox odor, or of the secondary suppurative fever."

"The observation of the marine hospital bureau has been that in the majority of mistaken diagnoses with regard to smallpox the disease has been called chicken-pox. This is more strictly a disease of children, affecting especially those under six years of age. Chicken-pox is a contagious disease, and many local health authorities require its isolation. Particularly when smallpox is prevalent, any case of supposed chicken-pox should be isolated and guarded as if it were smallpox, at least until the diagnosis is proved beyond doubt."—*Precis upon the Diagnosis and Prevention of Smallpox*, U. S. Marine Hospital Service, 1899.

"I am aware of no disease called 'Cuban itch' which could be mistaken for smallpox. There are several erythemic eruptions in Cuba, called 'Cuban itch,' but they are prickly heat or ringworm."—*Surgeon General U. S. Hospital Service*, to Illinois State Board of Health, December 7, 1899.

"If an eruptive disease appears in a district, it is the duty of the authorities to learn the nature of that disease, and, if it seems contagious, it should be isolated. If a doubt exists, an expert should be called to settle the diagnosis. All cases of so-called 'chicken-pox,' 'Cuban itch,' 'elephant itch,' 'nigger itch,' and the like, should be at once isolated; in nine out of ten cases these prove to be smallpox."—*Public Health Reports*, U. S. Marine Hospital Service.

"There is no type of chicken-pox which is peculiar to the island of Puerto Rico; there is no such disease as Puerto Rican chicken-pox. A chicken-pox-like eruption in adults almost certainly indicates smallpox."—*The Illinois State Board of Health*.

"The prevalent epidemic is one of smallpox (*variola*). To refuse to accept this fact is to be guilty of egregious folly and to commit a dangerous blunder. Fortunately the symptoms thus far exhibited have been those of modified or mitigated smallpox. The question of chief interest thus awakened concerns chiefly the difference to be established between unmitigated, unmodified smallpox (so called *Variola vera*) and the mild or mitigated form from which so large a number of our people have lately suffered. The history, symptoms and career of unmodified smallpox have been so systematically and fully recorded in medical literature that it will be needless in these pages to recount them. They are equally accessible to physicians and to laymen in the pages of standard treatises devoted to the subject."—James Nevins Hyde, M. D., in an open letter to the State Board of Health of Illinois, 1900.

"*Variola benigna*.—Van Swieten and others have described a form of natural smallpox under the title *Variola verrucosa*, or cornea, stone-pock, horn-pock, and wort-pock, which we sometimes see in these days, and in which the disease is of a mild, modified character. It is ushered in with symptoms as severe as in the dangerous, confluent form, but on the third or fourth day of eruption all the severe symptoms begin to subside; the eruption assumes a modified form, such as we constantly see in post-vaccinal cases. We have often had an opportunity of observing this form of the disease in children whose mothers were at the hospital with them, and who knew perfectly well no attempts had been made at vaccination. The pustules are of unequal size, some shriveling and dying off while others are maturing; there is no secondary fever, and no pitting. These are examples of mild natural smallpox, such as have occurred no doubt at all periods to a few favored individuals, and which, fortunately for the objects attacked, the disease leaves no trace behind."—*Reynolds's System of Medicine*, 1879.

"Even the mildest form of modified smallpox in one person may cause pure, hemorrhagic smallpox in another, and *vice versa*."—Allbutt's System of Medicine, 1897.

"It must not be forgotten that an unprotected person may contract a very virulent form of the disease from the mild varioloid."—Osler's Practice of Medicine, 1898.

"There is no relation between the severity of the type of the disease in the individual who is the source of the infection and in the individual who receives it. The lightest case may cause the most malignant, provided the susceptibility or predisposition of the victim who receives the infection is strong. On the other hand, the most severe confluent or malignant case may give rise to a very mild attack in a person whose susceptibility or predisposition is slight."—Twentieth Century Practice of Medicine, 1898.

"At the June meeting (1901) of the American Medical Association a symposium was held, at which the nature of the eruptive disease now prevalent in the country was carefully and thoroughly discussed, and it was unanimously decided that the disease is smallpox.

"*Smallpox must be stamped out in this state at whatever cost. The very first case which appears in any community must be properly quarantined and isolated, if the community would save itself an epidemic and commercial and financial loss. Three things ought always to be observed to handle smallpox successfully, viz., isolation, vaccination, and disinfection. If these requirements are rigidly enforced smallpox can be controlled.*

• "Vaccination.*—The most efficient means for preventing the spread of smallpox is by vaccination. The protection, provided the virus is pure, is believed to be as complete against contagion as is that of smallpox against a second attack, though not of as long duration, but revaccination, whenever smallpox is prevalent in a community, will continue this protection indefinitely. Therefore, the first measure after isolation of a person suffering with smallpox is the immediate vaccination of all persons who have been exposed to the disease and revaccination in five or six days, if there is no indication of the previous virus having been effective.

"In order to secure pure vaccine the supply should be obtained from an accredited source, and as bovine virus only is now used, the dangers which heretofore existed from arm-to-arm vaccination are eliminated.

"The operation of vaccinating a person, although fairly well understood, may be briefly described as follows:

"Usually, the left arm above the middle third is selected, although in some cases the wishes of the person receiving it may be consulted. The part to be vaccinated is bared and the skin rendered aseptic by means of soap and water and alcohol, after which, if a needle or lancet is used, it should first be passed through a flame or sterilized by means of alcohol, and the part scarified in one or more places. The virus is then rubbed in. Of course, it is understood that the same needle shall be used on but one person, and, if a lancet is used, it should be sterilized for each case. If the vaccination has been successful, it will be found that in the course of three or four days a small papule will appear, which soon after becomes vesicular, and is surrounded by a circumscribed areola; this gradually increases until the seventh or eighth day. In the meantime a crust forms, which in due course falls off, leaving the characteristic scar, resembling the pits of smallpox, the whole process occupying about three weeks.

"Due care should be exercised to prevent the vaccination from being irritated or the 'seal' from being broken and to prevent the wound from becoming infected. A vaccine shield is best for this purpose, and it is recommended that one, provided by the dealers or improvised, be used; but if a vaccine shield is not used, care should be taken, as above stated, to prevent the breaking of the 'seal' and undue rubbing of the part by the clothing. Adhesive plaster should not be used for this purpose.

"In the communities where compulsory vaccination is not required for children going to public schools, it will frequently be found that a large proportion

*From Public Health Reports.

of the pupils, unless an epidemic of the disease has recently occurred, have not been vaccinated, and it is among these that smallpox is more apt to be spread.

"Isolation.—(1) **Suspects:** Cases of illness suspected of being smallpox or chicken-pox should be isolated and kept away from others until the character of the illness is determined. This applies equally to those who have been exposed to smallpox, having a fever at the end of the period of incubation, and to those suffering from an eruption.

"(2) Cases: When the character of illness is determined to be smallpox, isolation of the patient should be continued, so that there will be no danger of the disease spreading from the case. Isolation is best accomplished in places especially prepared for the purpose. A hospital or lazaretto for smallpox should be located at least 2000 feet distant from, and to leeward of, habitations—prevailing winds being considered. It is possible under the most favorable circumstances to isolate a small-pox case in a house or residence, but it is not to be recommended. Accidents usually attendant on such isolation are responsible for new food of the disease among the adjacent residents.*

"(3) Provisions for treatment of cases: On removal of cases to a hospital or lazaretto, ample provision should be made for their care and treatment, and the patients should be provided with as many comforts as possible. In fact, these comforts are required by reason of the nature of the disease, and neglect of proper care will result fatally.

"Cases of varioloid, or smallpox modified by vaccination, should always be treated in the same manner as the virulent type; these cases are equally dangerous, if not more so, from a sanitary standpoint.

"As soon as a case of smallpox has been removed from a house or apartment, immediate steps should be taken to prevent the spread of the disease through these agencies. A disinfection of all infected material should be performed at once. Those persons who have been in direct contact with the case, or have been exposed to the infection otherwise, should be immediately vaccinated, unless they have been protected by a recent successful vaccination, or have had the disease.

"Persons who have been exposed to the disease should be considered under two classes:

"1. Those who have been exposed but once to the infection and are immediately vaccinated. These should be kept under observation until there are unmistakable evidences of the success of vaccination, when they can be discharged from further surveillance.

"2. Persons who have been exposed to smallpox and several days (over four) have elapsed before vaccination. They should be kept under observation until the period of incubation has passed. The period of incubation should be considered to date from the time of vaccination.†

"Persons who have been exposed to smallpox should be kept under the observation of a physician who should inspect them at least once daily during the period of incubation. These persons are not infectious until after the initial fever appears, and then slightly so in the first forty-eight hours—that is to say, before the eruption makes its appearance on the mucuous membrane and skin.

"Suspects should be kept under observation. Under certain circumstances this may best be done by segregating them in observation camps or hospitals. Under other circumstances it may be done by surveillance at their residences.

"Cases of smallpox under treatment should not be discharged until the process of desquamation is complete. This is variable, depending entirely on the case. A safe rule is to await the disappearance of the peculiar red specks at the bottom of the pits or scars. So long as this condition is present, desquamation is going on.

"On the termination of the case in recovery, the patient should be given an antiseptic bath—1-1000 bichloride of mercury—followed by a second bath of water, and then provided with sterile clothing.

"Cases dead of the disease should be encased in sheets saturated with a strong antiseptic, preferably bichloride of mercury (1-500), enclosed in a metallic

*The various departments of a smallpox hospital, in which cases of the disease and suspects are confined, should be thoroughly isolated from each other, so that there will be no danger of the suspects being exposed anew to the infection.

†Even if four or more days have passed since the exposure, it is always best to vaccinate the exposed person, as the vaccination may be successful and modify the course of the disease, because the period in which vaccination will take is much shorter than the time of incubation.

casket hermetically sealed, and immediately buried. Cremation is also recommended. It is needless to add, funerals, public or private, are interdicted. Burials should be conducted under the direction of the board of health officers."

"*Disinfection.*—The measures to be put in practice for disinfection are the same in general as those applicable to other infectious diseases, and may be considered under the following: (1) Disinfection of infected premises. (2) Disinfection of the person and his belongings.

"Premises: On the removal of a patient from a house or apartment, it is always best to have the contents of the room remain *in situ* while a preliminary disinfection is given. The object of this is to reduce the danger in handling the infected articles, preliminary to their final and complete disinfection.

"Room and contents: This may be accomplished by one of the following methods: (a) By formaldehyde gas,* in not less than four per cent. strength, for not less than twelve hours; (b) by exposure to sulphur dioxide for twenty-four hours, four pounds of sulphur to each 1000 cubic feet, plus due allowance made for waste.

"At the end of the time specified, the apartment and its contents should be arranged for a final disinfection. (a) The room should be made as air-tight as possible. (b) Clothing, bedding (exclusive of pillows and mattresses), hangings and carpets should be so arranged as to permit all surfaces to be freely exposed to the action of the gas, and then exposed to either (1) formaldehyde gas* in not less than four per cent. volume strength, for not less than twelve hours, or by (2) sulphur dioxide for twenty-four hours, by burning not less than four pounds of sulphur to each 1000 cubic feet, plus due allowance made for waste.

"Disinfection of a room can be also performed by wetting the walls, ceiling and floor with an efficient germicidal solution.

"It is impracticable to thoroughly disinfect feather pillows and feather beds by either formaldehyde or sulphur dioxide. It is recommended that where there is no apparatus for disinfecting fabrics, etc., these should be destroyed by burning. Where it is practicable to do so, it is recommended that clothing, bedding, carpets, articles of furniture and the like be disinfected by—(a) Exposure to steam at a temperature of 100 to 102 degrees C. for thirty minutes. (b) Boiling, the article to be completely submerged. (c) Saturation with an efficient germicidal solution. (d) Thoroughly wetting the surfaces of the article with a 40-per-cent. aqueous solution of formaldehyde, and confining it in a small closed space for not less than twelve hours (applicable for upholstered furniture). The commercial preparations known as formol, formalin, formalose, are 40-per-cent. solutions of formaldehyde. (e) The application of formaldehyde gas in a special apparatus for this purpose.

"Disinfection of a person and his belongings: As previously referred to under the head of isolation, cases recovered from smallpox should be given a bath with an efficient germicide, and special care should be taken to see that the hair is thoroughly washed, particularly in the case of negroes.

"Clothing, bedding, and articles used in the care and treatment of the sick should invariably be disinfected in the manner as outlined, or be destroyed by fire.

"The dejecta of smallpox patients should be disinfected by bichloride of mercury solution 1-500, carbolic acid solution 1-49, trikesol in solution, 1-100, solution of chlorinated lime, or milk of lime.

"As the contagium of smallpox will live for a great many years, no one knows how long, it is absolutely necessary that the infected premises, together with household goods and furnishings, be thoroughly disinfected after the disease has run its course.

"The following sections are taken from chapter 285 of the Session Laws of Kansas for 1901:

"SECTION 1. Whenever any physician shall know or have reason to believe that any person whom he is called to visit, or any person sick within his knowledge without the care of a physician, is sick with or has died of cholera, smallpox, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis, or any disease

*If formaldehyde gas is used, evaporate at least eight ounces of formaldehyde for every 1000 cubic feet.

dangerous to the public health, he shall immediately give notice thereof to the nearest board of health or health officer, and, if the case occurs in his own practice, shall at once cause a red or yellow cloth or card not less than twelve inches square, with the name of the disease written or printed thereon in large characters, to be fastened upon the front door or other conspicuous part of the building wherein the sickness prevails; such cloth or card to be maintained during the existence of the disease, and until such time as the health officer, or, in his absence, the attending physician, acting by his authority and approval, is satisfied that the premises have been thoroughly disinfected and are fit for reoccupation.

"Sec. 2. Whenever any householder shall know that any of his family is sick with or has died of smallpox, scarlet fever, cholera, diphtheria, epidemic cerebro-spinal meningitis, or any disease dangerous to the public health, he shall immediately give notice thereof to the nearest board of health or health officer, and shall cause the house to be placarded as prescribed in section 1.

"Sec. 3. Any municipal or county board of health or health officer having knowledge of any infectious or contagious disease, or of a death from such disease, within their jurisdiction, shall immediately exercise and maintain a supervision over such case or cases during their continuance, seeing that all such cases are properly cared for and that the provisions of this act as to isolation, restriction or communication, placarding, quarantine and disinfection are duly enforced. The local board of health or health officer shall communicate without delay all information as to existing conditions to the State Board of Health. Said health officer will confer personally, if practicable, otherwise by letter, with the physician in attendance upon the case, as to its future management and control, and with the authorities of the place, as to their duties in the premises. Should the disease show a tendency to become epidemic, the public and private schools must be closed, and, in extreme cases, church services suspended and public assemblages of people at shows, circuses, theaters, fairs or other gatherings prohibited. In case of smallpox, a general and thorough vaccination should be recommended and insisted upon.

"Sec. 4. All persons sick with smallpox, cholera, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis or any contagious or infectious diseases dangerous to the public health shall be thoroughly isolated from the public and properly quarantined.

"Sec. 9. It shall be the duty of every physician in attendance upon any person afflicted with any contagious or infectious disease designated in this act to notify the proper health officer when said premises are ready for disinfection, so that the same may be properly disinfected under the direction of said health officer or some other person under his authority.

"Sec. 10. Whenever cholera, smallpox, diphtheria, scarlet fever, epidemic cerebro-spinal meningitis or other infectious or contagious diseases show a tendency to become epidemic, and the local health authorities neglect to properly isolate and quarantine such diseases, *the State Board of Health or its executive officer may quarantine any city, township or county in which any of these diseases may show a tendency to become epidemic.*

"Sec. 11. Any person found guilty of violating any of the provisions of this act or failing to comply with any requirements thereof shall be, upon conviction, fined not less than twenty-five dollars nor more than one hundred dollars for each offense."

"The foregoing provisions of the law give ample authority to health officers to compel the reporting of smallpox cases, and if they are properly observed and enforced the disease will be prevented from spreading to new localities, and controlled in the localities where it has existed heretofore. The State Board of Health will instruct all law officers to enforce the law relating to public health against all violators of the same, whether they are physicians or householders. All health officers are hereby instructed that it is their duty to cause the arrest of any and all persons who fail or neglect to report all cases of smallpox. One or two successful prosecutions in any community will beget respect for law.

"All dogs, cats and other pet animals exposed to the disease should be killed and burned.

"Whenever a case of smallpox is found on any railway-train, passenger-coach

or other public vehicle or conveyance, it is the duty of the health officer whose attention is called to the case to have the car so infected immediately set on a side-track, a suitable distance from other habitations, to be used as a temporary smallpox hospital. The passengers in the infected coach or car should be thoroughly disinfected before they are allowed to continue their journey. When the smallpox case is removed from the coach or car the vehicle must be disinfected. If the city or county has a smallpox hospital, the patient should be removed to that hospital, if the life of the patient is not endangered by such removal. Health officers are authorized by law as to the above procedure. See chapter 75, section 17, General Statutes of Kansas for 1897. Also, see chapter 285 of the Session Laws of Kansas for 1901.

"GEO. W. HOLLEMBEAK, M. D.,
President.

W. B. SWAN, M. D.,
Secretary and Executive Officer,
Kansas State Board of Health.

"Copies of this circular can be obtained by applying to the secretary of the Kansas State Board of Health, Topeka."

Respectfully submitted.

W. B. SWAN, *Secretary.*

FOURTH QUARTERLY MEETING.

TOPEKA, KAN., December 5, 1901.

To Drs. G. W. Hollembeak, president, B. J. Alexander, J. M. Minick, A. S. Gish, G. E. Locke, J. B. Dykes, Chas. Lowry, R. J. Morton, and S. J. Crumbine:

DEAR DOCTORS—You are hereby notified that the next regular quarterly meeting of the Kansas State Board of Health will be held in the office of the secretary, at the state house, in the city of Topeka, on December 19, 1901, at two P. M.

Please acknowledge receipt of this notice, and oblige, Yours truly,

G. W. HOLLEMBEAK, M. D.,
President.

W. B. SWAN, M. D., *Secretary.*

TOPEKA, KAN., December 19, 1901.

In pursuance of the above call, the Kansas State Board of Health convened in the office of the secretary, at the state-house, and the meeting was called into business session at two o'clock P. M., by the president. The roll-call showed the following members present: Doctors Hollembeak, Minick, Gish, Lowry, Morton, Dykes, Crumbine. Absent: Doctors Locke and Alexander. Prof. E. H. S. Bailey, chemist of the board, was also present.

The minutes of the September meeting were read, approved, and ordered placed on file. The secretary then read his report, embracing the work of the past quarter, which was, upon motion, made a part of the proceedings of the board and ordered placed on file.

It was moved by Doctor Crumbine that the secretary again refer the matter of the Abilene cesspools to the auxiliary members of the board and request that they make a report with recommendations. This motion was seconded by Doctor Minick and carried.

It was moved by Doctor Dykes that the secretary be authorized to

purchase a new directory of the city of Topeka. This motion was seconded by Doctor Lowry and carried.

Mr. J. B. Hinthorn, secretary of the embalmers' examining committee, reported to the board that N. C. Yost, who holds embalmer's certificate No. 94, had violated the rules of the State Board of Health in preparing bodies for shipment. Mr. Hinthorn stated that this was Mr. Yost's second offense; that he had shipped a body from Hiawatha to Lincoln, Kan., which was not properly embalmed, and that he had signed a transportation permit as Yost & Son instead of N. C. Yost. After a general discussion concerning what should be done about this violation of the board's rules, Doctor Crumbine moved that the secretary of the Board of Health be instructed to notify N. C. Yost that another offense, either in improper use of the yellow transportation permit or the attaching of the signature of Yost & Son instead of N. C. Yost to these permits, or improper embalming, would be sufficient cause for the revocation of his certificate. This motion was seconded by Doctor Dykes and carried unanimously.

Prof. E. H. S. Bailey, the chemist of the board, made some remarks concerning the necessity of additional legislation to prevent the adulteration of foods and drugs. These statements were heartily approved by the members of the board, and at the proper time action will probably be taken upon this matter.

The following bills were audited and allowed:

A. S. Gish	\$7 32
R. J. Morton	5 80
J. M. Minick	15 19
J. B. Dykes	14 14
S. J. Crumbine	24 03
G. W. Hollebeak	22 90
Total	\$89 38
E. H. S. Bailey	\$3 00

Upon motion, the board adjourned, to meet at the call of the secretary.

W. B. SWAN, M. D., *Secretary*.

SECRETARY'S REPORT.

Mr. President and Members of the Board:

GENTLEMEN—The last quarterly meeting of the State Board of Health was held on September 26. A number of important matters have been presented to the board since that date, all of which have been nicely adjusted, with very little friction. The general health of the people of the state since the last meeting has continued remarkably good.

The first thing of importance which engaged our attention after the last meeting was getting out the pamphlet upon "Smallpox: its Prevention and Restriction," which was duly authorized at the last meeting. The state printed 5000

copies of this pamphlet for general distribution. Acting upon the suggestion of the board, a supply of these pamphlets was sent to the several county clerks of the state, with the request that the same be placed in the hands of all practicing physicians of the county, be sent to the local press, with the request that the more important portions be printed, and also to any others that the county clerk might see fit. I believe that these instructions were faithfully carried out, and in many instances additional copies have been asked for, which have been promptly supplied. I believe the circular is doing good work; at least, it has shown that the State Board of Health is alive to the situation and intends to do all in its power to stamp out this disease. The office also mailed copies of this circular to all other state boards of health in the United States, and sent a supply to each of the railroads operating in the state, calling their attention to the last two paragraphs and asking the hearty cooperation of the railroad officials, and also requesting that their employees be instructed to assist health officers whenever cases of smallpox should be found upon railway-trains or in stations. Many of the railway officials replied that they would do all in their power to co-operate with the State Board of Health in stamping out this disease.

During the latter part of September the office received a communication from A. L. Utterback, the city clerk of Caney, stating that the city of Caney was making arrangements for the construction of a water-works plant, and asked that the State Board of Health send its sanitary and civil engineer to look over the grounds and make a report concerning the sanitary side of the question.

As soon as he could conveniently do so, Professor Marvin went to Caney, looked over the situation, and presented the following report, which was duly transmitted to the authorities of Caney:

REPORT ON A PROPOSED WATER-SUPPLY FOR CANEY, KAN.

"To the State Board of Health:

"GENTLEMEN—In accordance with instructions received from your secretary, Doctor Swan, and at the request of Mr. John Todd, mayor of Caney, Kan., I visited that place on the 19th of October last to advise with the city officials concerning a proposed public water-supply. I found that the mayor and council were under the impression that the approval of your board was a legal requirement and that no move as to a selection of a source of supply could be made without such approval in advance. Nevertheless, after they were made aware of their mistaken ideas of the powers of the board, they seemed anxious to avail themselves of the opportunity offered in securing such advice as could be given.

"I found that no steps had been taken in the matter of design, other than by informal consultation with two different engineers who had visited the place and looked over the ground in a preliminary way. The town contains about 1200 people and had already voted to issue bonds in the sum of about \$10,000 for water-supply purposes.

"Caney lies in the Caney valley, near the junction with the Caney river of a small creek that comes in from the north and northeast. The possible courses of supply seemed limited to these two streams and to ground-water. From what I could gather relative to the watershed of these streams, I deemed the larger stream unfit for use without filtration of its water. The smaller creek drains a sparsely settled area containing a considerable percentage of grass land, and, near the town, had banks of such character as to make feasible the construction of a long, narrow pond a half mile or more in length, with probably six or eight feet of water, by the building of a short and inexpensive dam of low height. Some citizens seemed desirous of thus getting their supply. Others favored the

use of wells in ground nearer town. The only data obtainable concerning ground-water were from the owners of domestic wells or from those who had made them. These wells are shallow, fifteen to twenty feet deep, sunk into a water-bearing sand. Inhabitants claim that they have always held water in requisite quantity during the dryest times. The only information I could get of a quantitative nature, however, was a statement from one owner that his well had yielded a supply during the dry period of last summer to furnish a continuous inch stream without lowering the surface of the water in the well appreciably.

"I gathered a sample of the creek water from the natural pond which it was proposed to enlarge, and also one from the well last spoken of. These waters were analyzed by Professor Bailey, and a copy of his report is attached.

"I advised the authorities of Caney to first find a ground-water, if possible, and to spend some money in testing experimental wells, and further emphasized this advice, after getting the results of the analyses, in the following letter:

"LAWRENCE, KAN., October 28, 1901.

"*Mr. John Todd, Mayor, Caney, Kan.:*

"DEAR SIR—The results of the chemical analyses of the two samples of water which I collected when visiting your city are shown on the enclosed sheets, being Professor Bailey's report to me.

"These indicate that the well water is a much better and purer water than that from the creek north of your town, though somewhat harder and containing more mineral matter. The amount of free and albuminoid ammonia is larger than would be considered permissible by most water experts, whatever its source, and certainly would condemn the water if subject to suspicion of sewage pollution, though this is not the case in the present instance.

"So far as organic matter is concerned, the well-water is up to an excellent standard. The chlorine is a little high in both waters, but I consider this of no significance in this case, as it probably represents the normal amount in the soil, not indicating here any sewage pollution, as under some circumstances.

"The hardness of the well-water is not excessive. Water from the Neosho, at Iola, taken in June of last year, showed a hardness of 235; in the fall of 1899, 252. Iola uses this water. At times of flood it probably would be somewhat softer. No quantitative determination was made of the mineral constituents, but I do not think this necessary. Of course, other things being equal, I should prefer a soft water to a hard one, but in this case the greater purity of the well-water outweighs whatever disadvantage is due to its greater hardness as compared with the creek water.

"I would then strongly advise you to secure, if possible, a supply from the underflow, and recommend that you sink several test wells, if need be, to determine whether you can get the requisite quantity.

"Our geologist here knows something of the Caney river valley, though nothing of your immediate locality. He thinks it likely that the underflow would be abundant. I am sure that the ground-water will furnish you a more satisfactory public supply for domestic use, more safe from the standpoint of health, cooler in summer, freer from troubles connected with the maintenance of the system, and practically the same water the year round, always clear, and not subject to disturbance by storm flow. If you can get a sufficient quantity just northwest or west of your town, I think the expense of construction would be no more, and perhaps less, than that for the plan involving a pond on the creek and a dam that might go out with a flood, leaving you minus your supply.

Respectfully, F. O. MARVIN."

"Following are the results of Professor Bailey's analyses:

"No. 1.—Well-water from windmill well that supplies an elevator and yard.

"No. 2.—Creek water—creek north of Caney about one mile. Creek had no flowing water when sample was taken, but a considerable body of water, two to

four feet deep, about thirty feet wide and one-half mile or more long. This probably represents fairly the water of the proposed pond:

	No. 1.	No. 2.
Reaction	Slightly alkaline.	Slightly alkaline.
Taste	Normal.	Like rain-water.
Sediment	Slight.	Considerable reddish.
Turbidity	Slight.	Considerable reddish.
Color	Normal.	Slightly yellow.
Total solids	250.0	125.0
Free ammonia .....	.05	.165
Albuminoid ammonia .....	.132	.4
Chlorine	15.0	17.0
Hardness	214.548	153.8
Nitrates .....	.208	.11
Nitrites	Trace.	Trace.
Calcium	Considerable.	* Considerable.
Iron and aluminum	Slight.	Fairly large.
Magnesium	Slight.	* Slight.
Sulphates	Considerable.	* Fairly large.
Carbonates	Considerable.	Considerable.
Sodium	Some.	Some.
Silicates and insoluble	Slight.	Considerable.

"Professor Bailey comments as follows: 'Considering, then, all the analyses, it is evident that water No. 1 is more free from organic matter, while No. 2 contains less mineral matter. The waters may both contain a little sodium sulphate or be slightly alkaline in character, but this can only be known positively by a more complete mineral analysis. The excess of organic matter in No. 2 is also shown by the fact that the residue blackened on being heated. Both the free and albuminoid ammonia are high in No. 2, showing a large amount of organic matter.'

Respectfully submitted. F. O. MARVIN."

In connection with this report of Professor Marvin's, I desire to say that the cities of this state should be considered fortunate in being able to secure the services of Professor Marvin in making these investigations. Even the State Board of Health should feel complimented that Professor Marvin is willing to do this service without compensation. It certainly indicates that the gentlemen of the advisory board are willing to make great personal sacrifices for the interests of public health.

SMALLPOX.

The condition of the state with reference to smallpox is not alarming. In fact, I believe the new public-health law is having a salutary effect. It seems to be only necessary to impress upon the people the fact that if they violate the quarantine law of the state, they can be arrested and punished to get them to observe the requirements of this law. During the month of September there were twenty-eight cases of smallpox in the state, with no deaths. During the month of October 244 cases, no deaths. During the month of November 137 cases, two deaths.

Quite a large number of cases have appeared in the following places: Baldwin, Douglas county; Fort Scott; Highland Station, Doniphan county; Kickapoo Indian reservation, southern part of Brown county; Marshall county, and Washington county. At the present date the epidemic in Baldwin has practically been stamped out, and the same is true with reference to Highland Station, Kickapoo Indian reservation, and Marshall and Washington counties. At other points in the state where the disease exists there are only a few cases.

When we compare the reports of smallpox cases for October and November of this year, we note that October furnished 244 cases, while November had 137. This is the only time during the past three years, or since the epidemic of smallpox started in this state, that the second month of the epidemic showed a decrease in the number of cases. There were over 100 more cases in October than

* Less than No. 1.

November. I attribute this decrease to the operation of the new public-health law. I sincerely trust we will be able to maintain such vigilance as to prevent the disease becoming epidemic in any part of the state during the present winter.

During the past quarter it has been necessary for the secretary to make a number of trips over the state upon smallpox investigations.

On the evening of October 11 I received a telegram from Dr. J. B. Gardner, health officer of Crawford county, to go to Girard at once to inspect smallpox cases. I arrived in Girard on the afternoon of the 12th, and, calling upon Doctor Gardner, found that my presence was needed in determining whether the case was smallpox or not. A discussion had arisen between Doctor Gardner and Dr. Geo. E. Cole, health officer of Girard. Doctor Cole held that the disease was not smallpox, and did not desire to establish a very effective quarantine. Upon investigation, I found the case to be one of smallpox, of the usual mild form which has been prevailing in the state during the past two years. I advised Doctor Cole that the disease was smallpox, and requested that it be quarantined as such, and that all necessary precautions be taken to prevent the further spread of the disease. Doctor Cole did not desire to report the case as smallpox, because he did not believe it was. He told me it made no difference what authority I would bring, he would still believe the disease was not smallpox. However, upon my advice, he quarantined the disease and regularly reported the cases as smallpox.

On the 22d of October, complaint having been received in the office that the local authorities of Hanover, Washington county, were not maintaining a proper quarantine about smallpox at that point, I determined to make a personal investigation of the situation. A few days prior to this, Dr. W. M. Earnest, county health officer of Washington county, had requested me to go to Hanover and look into the situation there. I understood, however, that the county board of health had made a visit to Hanover, and advised that a quarantine be maintained about these cases, but on the date referred to I had reliable information that this quarantine was not effective. At noon on the 23d I arrived at Hanover, and found that there were about fifteen cases of smallpox in the town, and that very little effort had been made to properly quarantine these cases.

Under the new law passed by the last legislature, any city or town of this state which has a municipal board of health is required to report direct to the State Board of Health. Under another law, the county board of health has no jurisdiction wherever there is a municipal board of health. This being the legal situation, of course each municipal board of health must report directly to the State Board of Health. I advised the local authorities of Hanover that it was necessary for them to maintain a rigid quarantine about every case of smallpox, or, if they did not, it might be necessary for me to quarantine their town. While in Washington county, it was reported to me that several school districts in the eastern part of the county were badly infested with smallpox. I instructed the county health officer to make an investigation in these districts, which he did and reported to me the following day. In one district all the pupils but two had had smallpox, and the school was kept open all the time. The real difficulty at Hanover was that none of the local physicians were willing to believe the disease was smallpox; hence they would not report it as such, and for this reason very little effort was made to quarantine it. Following my visit, placards were printed with the word "smallpox" upon them, and each case was quarantined as such. As no complaint has come from that vicinity since, I have every reason to believe that all cases are properly cared for.

On October 25 I was called to Baldwin, Douglas county, to confer with the local board of health, and assist them in controlling the spread of smallpox in

that town. I found about thirteen cases of smallpox, with a large number of exposures, as one of the students had brought the disease to the town, and had been attending college regularly even after breaking out. The claim was made that it was not known that the disease was smallpox. Having called together all the physicians of the town and a representative of the college, I explained to them the necessity of a very rigid quarantine, if they desired to prevent an epidemic of smallpox in their midst. A quarantine had been established from the very first, and everything seemed to be under control. They desired my presence more for advice which might be given than any difficulty they were experiencing in maintaining a quarantine. So many of the students were exposed that quite a number of cases have resulted, but no further serious trouble is anticipated.

* At this date there are only about three cases in the town. I desire to commend the prompt and successful work of the city officials in this matter, also the local health authorities, for the determined effort which was made and successfully carried out in preventing an epidemic of this disease.

On November 4 I received a telegram from Dr. R. H. Meade, health officer of Barton county, requesting assistance from the State Board of Health concerning the investigation of the smallpox cases. This point being nearest to Doctor Crumbine, and it being almost impossible for me to leave the office at that time, I requested Doctor Crumbine to make this investigation on behalf of the State Board of Health. Doctor Crumbine made the required investigation and reported as follows:

"DODGE CITY, November 7, 1901.

"*W. B. Swan, M. D., Secretary, Topeka, Kan.:*

"DEAR DOCTOR—Upon the receipt of your telegram of the 4th, I started for Great Bend on the 5th, and reported to Dr. R. H. Meade, the health officer of Barton county. The morning was spent in visiting seven infected houses, in which we found eight cases of smallpox. The cases were all very mild in nature, and were it not for certain well-marked diagnostic conditions in two of the cases, the character of the eruptive epidemic might be in doubt, but these two cases clearly indicated that the disease was the so-called 'modified smallpox,' which was epidemic in this city last year. Inasmuch as there seems to be a division of sentiment concerning the nature of the disease, not only among the physicians, but among the people also, making the quarantine regulations of the health officer difficult of enforcement, I suggested that a joint meeting of the city officials, board of education and county attorney and sheriff be held, to advise together what should be done. The meeting was accordingly held in the afternoon at the county attorney's office, and, after reading the new quarantine law, and assuring them of the nature of the epidemic, together with the determination of the State Board of Health to control the epidemic if within its power, and at any cost, it was decided to enforce the quarantine of the county health officer, with orders to arrest all violators of the same. The board of education also ordered printed a large number of circulars for distribution in every house in the city, printing in full section 2 of the quarantine law, in which every householder is held responsible. I am of the opinion that, with this show of determination on the part of the officials, there will be no further trouble in the enforcement of the excellent quarantine which Doctor Meade is earnestly endeavoring to enforce, in the face of much opposition.

"The pupils in two rooms of one of the public schools were exposed for several days, and Professor Baker, superintendent, has been directed to close that school upon the appearance of any more cases in the building. I was treated with the utmost courtesy in every house visited but one, in which the female occupant

treated us with all the adjectives and superlatives the English language contains, but the honor of the board was maintained by holding my peace.

"Doctor Meade reported a number of cases of smallpox at Ellinwood, but as he assured me the quarantine was being observed, I did not go there. There are two infected houses, with three cases of scarlatina, in Great Bend, which are included in the general quarantine. Fraternally yours,

S. J. CRUMBINE, M. D."

From reports of Doctor Meade since this investigation, Doctor Crumbine's visit was productive of great good. The situation at that point is vastly improved.

During the early part of Noyember there was some complaint on the part of the Missouri board against certain of the towns of our state which were sending smallpox cases to Kansas City, Mo. I made careful investigation of this matter, and discovered that in some of the instances reported persons afflicted with smallpox alleged they had come from Kansas, but when fully investigated it was found that their statements were false. However, during the past two or three winters there has been more or less disposition on the part of certain towns to ship smallpox cases to some other portion of our state or into another state. Knowing this to be the case with some of the municipal authorities, I took the matter up personally with the secretary of the Missouri board, and as this sort of a procedure was clearly in violation of the laws of both Kansas and Missouri, we agreed to have the following order printed, and requested the railways operating in each state to place one of these notices in a conspicuous place in each and every railway station in these two states:

"NOTICE!

"WHEREAS, Smallpox exists in some localities in this state, and also in neighboring states and territories: therefore, to avoid an epidemic, the Kansas State Board of Health issues the following order:

"Persons in charge of trains, depots, waiting-rooms or street-cars shall not permit any one who has smallpox, or who has been exposed to the disease, to enter.

"No corporation, municipality, ticket agent or other person shall sell any ticket or furnish transportation of any character to any person infected with smallpox or who has been exposed to the disease.

"This order is issued by authority of law, and any one violating its provisions shall be subject to the penalty contained in chapter 285 of the Session Laws of Kansas, 1901, and in section 6668, General Statutes of Kansas, 1901.

By order of KANSAS STATE BOARD OF HEALTH.

W. B. SWAN, M. D., *Secretary.*

"GEORGE W. HOLLEMBEAK, M. D., *President.*"

I had 2000 copies of this notice printed and have supplied all the railroads with the number they requested.

On November 23 the morning mail brought two letters to the office, which disclosed a rather complicated condition of affairs in Phillips county. On that morning I received a letter from Dr. S. S. Fisher, stating that he had called the county board of health together, upon advices received that smallpox was again breaking out in Phillips county. When the board met on November 22, it asked Doctor Fisher to resign his office as county health officer. Upon Doctor Fisher's refusal to resign, as his term did not expire until January 13, 1902, the board proceeded to declare the office vacant. Doctor Fisher contended under the law that the board had no right to remove him except for cause, and then only at a

regular meeting. Doctor Fisher requested the county attorney to attend the meeting and give a legal opinion upon this subject to the board. The county attorney did so, and stated that he did not believe the board could remove Doctor Fisher at that time. However, the board proceeded to do so, and upon the same day elected Dr. C. E. Nelson, of Phillipsburg, as county health officer.

The other letter which was received on the morning of the 23d was received from Doctor Nelson, advising me that he had been duly elected county health officer of Phillips county. Desiring to obtain some legal advice upon this matter before I acknowledged Doctor Nelson's letter, and consequently his appointment as health officer, I carried the two communications to the attorney-general and asked him for an opinion. I found that the attorney-general had that morning received a letter from Mr. W. G. Bissell, county attorney of Phillips county, asking for an opinion concerning what was a regular meeting of the board as contemplated by law, and also asking for other legal information involving the same questions which I had to present. This subject had been placed in the hands of Assistant Attorney-general Clad Hamilton, and he told me his answer to Mr. Bissell would cover the same points upon which I desired legal information; hence he would send me a copy of the letter to Mr. Bissell for my guidance.

I did not want to recognize Doctor Nelson as county health officer unless he was legally elected, and for this reason I had appealed to our legal department. The letter of the assistant attorney-general follows:

"ТОРКА, November 23, 1901.

"Mr. W. G. Bissell, County Attorney, Phillipsburg, Kan.:

"DEAR SIR—I beg to acknowledge receipt of yours of the 22d inst. Below I state your questions, followed by the answers which I desire to give:

"1. What is a regular meeting of the board of health, as contemplated by section 6382, General Statutes of 1899?

"*Answer.* The board of county commissioners is not the board of health as contemplated by the health statute. The individual members of the board of county commissioners are the persons who constitute the health board. By regularly organizing the board of health and adopting lawful rules and regulations, a regular time for meeting might be fixed. The laws providing for the regular meetings of the board of county commissioners as such do not necessarily govern as to what shall constitute a regular meeting of the board. But if no rules and regulations have been adopted fixing the time for regular meetings of the board of health, and if, by customary usage, the regular meeting time of the board of county commissioners has heretofore been adopted and employed as a regular meeting time for the board of health, such custom or usage will fix the time of the regular meeting. A regular meeting may be distinguished from a special meeting by the fact that it is held in obedience to an unvarying custom or law; whereas, a special meeting is held irregularly, in response to some special motion or action of a member of the board or other person.

"2. Would the refusal of the county commissioners to make any allowance to the health officer beyond his regular salary of \$12.50 per annum, and their neglect to investigate without delay a reported case of smallpox, be a violation of section 3, chapter 285, Laws of 1901, that would lay them liable criminally?

"*Answer.* This question must be divided: (a) The refusal of the commissioners to make any allowance to the health officer beyond his regular salary, if done in good faith, would not lay them liable criminally. (b) If, upon obtaining knowledge of a case of smallpox within their jurisdiction, the commissioners should fail to immediately exercise and maintain a supervision over such case during its

continuance and to otherwise follow the direction of section 3, chapter 285, Laws of 1901, they would be liable to a fine under such statute.

"3. Could the county board of health compel the health officer of the county, who is employed for a salary of fifty dollars per annum, to do 'the routine work' of the office, to look after and maintain quarantine, without additional compensation?"

"*Answer.* I think the county health officer must perform such duties as are enjoined upon him by law, and such as his local board or the State Board of Health may require of him. As to compensation, that must depend upon the contract in each particular case, and where there is no contract then upon what a jury shall determine to be 'reasonable compensation.' I would say that a contract to perform 'routine work' does not cover the performance of services incidental to the control and management of an epidemic of smallpox.

Yours very truly, A. A. GODARD, *Attorney-general.*"

During the months of January, February and March of this year, Phillips county had an epidemic of smallpox. Doctor Fisher was the county health officer at that time, and the county board of health agreed to pay him fifteen dollars per day for taking complete charge of the smallpox epidemic. When the board of health realized fully the situation in Phillips county, and that it would take longer to control the epidemic than it supposed, the board refused to abide by its agreement and notified Doctor Fisher that it would not pay him the stipulated amount. Doctor Fisher appealed to me, wanting to know what to do. At that time there were probably 200 cases of smallpox in Phillips county, and Doctor Fisher did not feel as though he could devote his time in caring for these cases unless the county board was willing to give him a reasonable compensation. I instructed Doctor Fisher that, as he was county health officer, it was his duty to see that all smallpox cases were properly cared for; that he was to disregard the order of the county board of health, and, if necessary, could sue the county for a reasonable compensation. Doctor Fisher followed my advice, and when the epidemic was over presented a bill amounting to about \$1400 for services at fifteen dollars per day. This rate of fifteen dollars per day included all medicines which Doctor Fisher had furnished. In due time he entered suit against the board of county commissioners of Phillips county for this bill, and, believing he could not obtain a fair trial in Phillips county, obtained a change of venue to Norton county. This case will be heard in the Norton county district court the first week of February.

I have simply recited these facts to show you why the county board desired Doctor Fisher to resign. It was simply a personal difficulty between the board and Doctor Fisher. I advised Doctor Fisher not to resign, as I believed he was justly entitled to be paid the sum agreed upon for his services of last winter. In no county of this state was a smallpox epidemic handled with more skill than the one in Phillips county. I made a personal visit there last winter when this epidemic was at its height, and know the difficulties with which Doctor Fisher had to contend.

On the 25th of November last, I received a telegram from Doctor Fisher requesting me to go to Phillipsburg and use my influence with the county board, so that there might be no delay in properly caring for the smallpox cases which were developing. Doctor Fisher did not desire to care for these cases unless he was county health officer and was going to receive a reasonable compensation, and, in fact, he could not proceed with any degree of satisfaction, because

it was generally known that the board had selected Doctor Nelson as county health officer.

Armed with the opinion of the attorney-general addressed to Mr. Bissell, I arrived in Phillipsburg on the morning of November 26. The county board of health was called together, and, after reading the opinion of the attorney-general, it was advised to reconsider its action of November 22, and finally it did so and reinstated Doctor Fisher. In addition, the county board made a contract with Doctor Fisher that he should care for all cases of smallpox, from the time of that meeting until the expiration of his contract, on January 13, 1902, for the total sum of \$150. Considering the situation in Phillips county, the animosity which exists between the county board of health and Doctor Fisher, the State Board of Health is to be congratulated that its good offices were accepted in this instance, and what might have resulted in a complicated condition of affairs was finally adjusted in the interest of public health.

Complaint having come to the office that the sanitary condition of the Soldiers' Orphans' Home, at Atchison, was not what it should be, I addressed the following letter to Mr. Allen:

"TOPEKA, KAN., October 16, 1901.

"H. J. Allen, Esq., President Board of Trustees State Charities and Corrections, Ottawa, Kan.:

"DEAR SIR—From certain facts in my possession, I am satisfied that the disposition of sewage from the Soldiers' Orphans' Home, at Atchison, is not what it should be, and also that more water is needed at this institution. Of course, I do not know what funds you have at your disposal to make these improvements, but would suggest that the next time your board visits the home these two subjects should receive consideration at your hands. The proper disposal of sewage, as you know, means much from the standpoint of health of the inmates of the institution. Yours very truly, W. B. SWAN, M. D., Secretary."

In reply to this communication I received the following letter:

"OTTAWA, KAN., October 18, 1901.

"W. B. Swan, M. D., Topeka, Kan.:

DEAR SIR—I have yours of the 16th inst., with reference to the sanitary condition at Soldiers' Orphans' Home. At our last visit there we noticed more water was needed at this institution. The water problem there has been a grave one on a number of occasions. We are trying to figure out some way to remedy the evil, and I think at our next meeting we shall be able to take some steps by which we can relieve the situation. Very truly yours, H. J. ALLEN."

As an illustration of the confidence the municipal authorities of the state have in the State Board of Health, I desire to report the instances following where I was used as an arbiter. There is no question but that the influence of the State Board of Health is growing in this state. The appeals which are made to this office with reference to the adjustment of sanitary matters are greatly on the increase. This we take to be a large part of the work of the State Board of Health. That which relates intimately to the health of the people of this state touches very closely the work of this board. It has been the policy of the office to give all these sanitary matters the most careful attention. It makes no difference how slight the nuisance may be, it is taken up and referred to the proper health officer, and many times good results are obtained in the abatement of the nuisance.

One of the instances above referred to occurred at Burlington, Coffey county. During the summer which has just closed Coffey county constructed a stone court-house costing about \$40,000, and the question of disposing of the sewage of

this building was left to the county commissioners. As the fall approached and it became necessary to heat the building, the commissioners concluded to build a sewer from the court-house down the main street of the town of Burlington, and empty into Rock creek at a point where the principal street of the town crosses this creek. When it became known that the commissioners had decided to build this sewer and make its exit at the point indicated, the business men on the main street who would be affected by the disposal of sewage in this manner started injunction proceedings against the county commissioners. The county attorney and also the attorney for the business men came to Topeka, interviewed me upon this subject, and agreed, practically, that if I would go to Burlington, make an investigation of the sanitary surroundings and the outlet of the proposed sewer, and if I found it to be unsanitary, they would agree to follow my recommendations.

"On October 23 I went to Burlington and made the desired investigation. I found that Rock creek, which traverses the entire city in a general southeasterly direction, was used as an open sewer, and at that time was in a most filthy condition. The summer and early fall being so dry, this creek had not received any flushings. The result of my investigation was that I condemned the disposal of sewage from the court-house in the manner proposed, and urged very strongly that the entire city be sewerred, and that the use of Rock creek as an open sewer be abandoned. This suggestion received considerable favor from the business men who attended the meeting, and I believe in the near future this will be done. However, as the city was not quite ready to build a system of sewers, and as the building could not be heated until some provision had been made to receive the waste water from the heating plant, the commissioners decided to construct a cesspool for temporary use. While I was there the commissioners asked if they would be permitted to do this. I told them under certain restrictions they could do so. Under date of December 7, I am advised by the county attorney that a cesspool has been built about fifty feet from the court-house, having a capacity of about 200 barrels, is made of brick, and thoroughly cemented, and its contents will be removed as may be necessary. While this result is not quite what we desired, it is infinitely better than disposing of the sewage at the point where Rock creek crosses the principal street of the town.

On December 2 I was requested by the city clerk of Ellis, Kan., to go there and make an investigation concerning the location of a cesspool in that city. In this instance the mayor and council of Ellis and Mr. Waldo, upon whose property the cesspool had been built, agreed to abide by my decision, and carry out whatever my instructions might be. The city of Ellis was threatened with lawsuit by Mrs. Viola Gaylord on account of the cesspool supposedly contaminating her well. In response to this request, I went to Ellis, and submitted the following report, which explains the situation, and the recommendations I am sure will be carried out:

"To the Mayor and Council of the City of Ellis:

"GENTLEMEN—As per the request of Dr. W. R. Griffin, your city clerk, I, on December 2, made a personal investigation of the cesspool on the property of Mr. Waldo, of your city, and beg leave to submit the following report:

"The cause which made this investigation necessary was a complaint on the part of Mrs. Viola Gaylord. The cesspool complained of is situated about ninety feet to the west of Mrs. Gaylord's well, and so far as I can learn the underflow of water in that vicinity is from west to east, or from northwest to southeast. Thus the water which would seep from this cesspool might be carried to the well of Mrs. Gaylord and pollute the water. When an analysis of the water

from Mrs. Gaylord's well was made some weeks ago, by the state chemist, the water was found to be badly polluted with organic matter and was wholly unfit for domestic use. When we find organic matter in water we usually suppose its source is found in sewage. Since the time of this analysis, however, Mr. Waldo has filled up the first cesspool and constructed another about fifteen feet further to the west, and upon his own property. This is the cesspool now complained of. The water in Mrs. Gaylord's well has been better since the cesspool was moved farther west. These are the sanitary conditions as I found them upon personal investigation, and would now submit the recommendations in this matter.

"Cesspools not thoroughly cemented are always dangerous to the public health. The only proper method of constructing cesspools is to brick the bottom, wall up the sides, and then cement them with a good quality of Portland cement. In fact, the construction of a cesspool should be similar to a cistern. It should be impervious to water. In the matter complained of, I would recommend that your honorable body require Mr. Waldo to clean out his cesspool, place one or two courses of brick on the bottom, and then thoroughly cement the bottom and sides with a good quality of Portland cement. I understand Mr. Waldo is willing to do this; hence the council is relieved of its difficulty. I would also recommend that at any time in the future when other citizens desire to construct cesspools they be required to comply with the same conditions.

"A cesspool constructed as indicated above, and then the contents removed periodically, or when necessary, is the best possible sanitary way of adjusting this difficulty. If Mr. Waldo faithfully carries out the above, Mrs. Gaylord can have no reason whatever to complain, and the city cannot be made liable for any damages, because possibility of polluting the water-supply has been reduced to the minimum.

"While we are on sanitary matters, I would also recommend that the vault at the foot of Mrs. Gaylord's lot be ordered cleaned, and that all other vaults in the city which are in a bad sanitary condition be emptied.

Respectfully submitted. W. B. SWAN, M. D., *Secretary.*"

The following semiannual reports are submitted by the secretary and treasurer of the embalmers' examining committee:

"To the State Board of Health: "HIAWATHA, KAN., December 12, 1901.

"GENTLEMEN—As secretary of the Kansas embalmers' examining committee, I desire to make the following report: Only one examination has been held since the last semiannual report, in June, and this was at Abilene, on June 28, 1901.

Number of undertakers examined at this meeting	47
Number of certificates granted	36
Number of applicants who failed to pass	11
Total number of undertakers holding certificates who had them renewed during the year	215
Total number of undertakers who now hold certificates from the embalmers' committee	267
Number who have not paid renewal fee to date	16
Received for renewals since last report	\$54 00
Amount received from examinations at Abilene	235 00
Total	<u>\$289 00</u>

"The following bills have been allowed and warrants drawn for the same:

June 28, E. O. DeMoss, expenses and services at Abilene	\$25 72
" 28, H. W. Gates, expenses and services at Abilene	30 00
" 28, J. B. Hinthorn, expenses and services at Abilene	28 02

June 28, J. T. Barkley, expenses and services at Abilene	\$25 72
" 28, J. M. Doyle, expenses and services at Abilene	26 24
" 28, H. W. Gates, for printing	5 35
" 28, Harrington Printing Company, printing	12 25
" 28, <i>Brown County World</i> , printing	3 25
" 28, <i>Brown County Republican</i> , printing	25 00
" 28, W. E. Eicholtz, hall rent at Abilene	3 00
" 28, J. B. Hinthorn, salary as secretary and cash	43 50
Aug. 6, J. B. Hinthorn, cards, stamps, services as secretary	26 35
" 6, <i>Brown County World</i> , printing 2000 lists of names of undertakers who hold certificates	7 50
" 6, Harrington Printing Company, printing	3 25
Total	<u>\$265 15</u>

Respectfully submitted. J. B. HINTHORN, *Secretary.*"

"BELLEVILLE, KAN., December 12, 1901.

"To the State Board of Health:

"GENTLEMEN—As treasurer of the embalmers' examining committee, I respectfully submit the following report to your board of funds received and paid out as per order of said committee:

Balance on hand last report, June 5, 1901	\$141 04
Received from Sec. J. B. Hinthorn since last report	289 00
Total receipts	<u>\$430 04</u>
Paid out as per warrants attached to secretary's report	265 15
Balance on hand at date	<u>\$164 89</u>

Respectfully submitted.

J. M. DOYLE."

"These accounts were audited and found correct.—W. B. SWAN."

The foregoing report embraces largely all the important matters which have been transacted in the office during the past quarter. The expenses incident to sending out the annual report, the smallpox pamphlet and the notice to railroads concerning the transportation of smallpox cases have been so heavy that the probabilities are we will be unable to hold the regular quarterly meeting of the board in March. It is really necessary that the annual meeting in June be held; hence I think I will call no meeting of the board for March. About \$150 of the board's funds have been used for postage and expressage during the past six months. This is about twice as much as is usually used during that period. As only \$460 are appropriated annually for the expenses of the board, and as each meeting costs on an average of eighty-five dollars, you can readily see that our funds are going to be short. I do not care to have the experience of last June repeated, namely, not enough funds at our disposal to pay the members of the board for their expenses in attending the meeting. There will probably be no urgent reason for the board to be called in March, and my next report can cover a period of six months instead of three.

Respectfully submitted.

W. B. SWAN, M. D., *Secretary.*

ANNUAL MEETING—1902.

The following call was sent for the annual meeting :

TOPEKA, KAN., June 3, 1902.

To Drs. G. W. Hollembeak, president, J. M. Minick, G. E. Locke, A. S. Gish, B. J. Alexander, S. J. Crumbine, Chas. Lowry, R. J. Morton, and J. B. Dykes :

DEAR DOCTORS—You are hereby notified that the annual meeting of the State Board of Health will be held in the office of the secretary, at the state-house, in the city of Topeka, on the 25th day of June, 1902, at two o'clock P. M.

Please acknowledge receipt of this notice, and oblige,

G. W. HOLLEMBEAK, M. D., *President*. W. B. SWAN, M. D., *Secretary*.

TOPEKA, Kan., June 25, 1902.

The annual meeting of the Kansas State Board of Health was held in the office of Doctor Lowry, 809 Kansas avenue, on the above date, and was called to order by the president.

Members present: Doctors Morton, Gish, Crumbine, Hollembeak, Lowry, Minick, and Alexander. Absent: Doctors Locke and Dykes. No members of the advisory board were present.

Doctors Lowry, Morton, and Crumbine, having been reappointed by Governor Stanley for the term ending March 28, 1905, regularly took the oath of office at this time.

The minutes of the last meeting were read, approved, and ordered placed on file. The secretary then read his report for the work of the board for the past six months, as there was no meeting in March. Upon motion of Doctor Crumbine, seconded by Doctor Morton, the report was ordered to be made a part of the records of the board, and placed on file.

Doctor Alexander moved that the two offices of sanitary adviser and civil engineer be consolidated, and that Professor Marvin be appointed to fill the position. Doctor Minick seconded this motion, which was carried. The title of Professor Marvin's position hereafter will be sanitary adviser and civil engineer of the State Board of Health. Upon motion of Doctor Crumbine, seconded by Doctor Minick, Professor Bailey was reappointed chemist of the board.

Dr. Sara E. Greenfield, of Hiawatha, was nominated by Doctor Alexander as bacteriologist of the Board. This motion carried unanimously.

As the terms of Mr. Doyle and Mr. Gates, of the embalmers' examining committee, expired, the following candidates were placed in nomination: Mr. J. M. Doyle, of Belleville; Mr. I. W. Gill, of Wichita; Mr. W. E. Eicholtz, of Abilene. These candidates were balloted upon and received the following votes: Mr. Gill, 5; Mr. Eicholtz, 7,

and Mr. Doyle, 2. The president declared Mr. Gill and Mr. Eicholtz elected members of the embalmers' examining committee for two years.

It was moved and carried that the bill for the *Sanitarian* be allowed:

It was moved by Doctor Morton, and seconded by Doctor Alexander, that a committee on legislation be elected. Carried. Doctor Lowry moved that the rules be suspended and that Doctors Hollembeak, Alexander and Swan be elected by acclamation. Carried.

Nominations for president were called for. Doctor Morton nominated Dr. J. M. Minick, of Wichita. There being no other nominations, the chair declared the nominations closed. Upon motion, the rules of the board were suspended and Doctor Minick was elected president by acclamation.

It was moved and carried that Dr. W. B. Swan be elected by acclamation as secretary of the board.

Doctor Hollembeak requested the newly elected president, Doctor Minick, to take the chair. In assuming the position of president, Doctor Minick thanked the board for the honor conferred upon him.

Doctor Hollembeak made an oral report concerning his visit to investigate smallpox at Garden City. Doctor Crumbine reported that upon the request of the secretary he had visited Bloom, in the southern part of Ford county to investigate smallpox, and stated that out of eighteen inhabitants of the village fourteen had had smallpox.

The new president, Doctor Minick, announced the following standing committees:

1. *On heating, lighting, ventilation, and general sanitation:* Doctors Gardner, Dykes, and Gish.

2. *On epidemic and endemic diseases and quarantine:* Doctors Locke, Lowry, and Alexander.

3. *On topography, meteorology, hygiene, and inspection of public, state and charitable institutions:* Doctors Hollembeak, Crumbine, and Locke.

4. *Water sources, drainage, and disposal of substances dangerous to public health:* Doctors Dykes, Lowry, and Gish.

5. *Special sources of danger to life and health:* Doctors Gish, Gardner, and Hollembeak.

6. *Adulteration of foods, drugs, and drinks:* Doctors Alexander, Crumbine, and Dykes.

7. *Vital statistics, registration, and nomenclature:* Doctors Crumbine, Hollembeak, and Gardner.

8. *Finance and executive:* Doctors Lowry, Gardner, and Alexander.

The following bills were audited and ordered paid:

	<i>Allowed.</i>	<i>Paid.</i>
A. S. Gish.....	\$4 36	\$4 36
S. J. Crumbine.....	13 65	.....
R. J. Morton.....	7 35	7 03
B. J. Alexander.....	7 00	.....
J. M. Minick.....	9 65	9 65
G. W. Hollembeak.....	14 20	14 20
Totals.....	\$56 21	\$35 24

Upon motion, the board adjourned, to meet in Wichita upon the call of the secretary.

W. B. SWAN, *Secretary.*

SECRETARY'S REPORT.

Mr. President and Gentlemen of the Board:

GENTLEMEN—As you will recall, the last meeting of the State Board of Health was held on the 19th of December. It is to be regretted that on account of lack of funds we were unable to hold our regular quarterly meeting in March. During the past winter the correspondence of this office has been so heavy that considerable money has been used in postage. Our bills for expressage in sending out blanks from the office have also been quite large. In addition to these two items, hundreds of copies of the pamphlet upon smallpox have been mailed to physicians and others, which has also consumed our postage. The next legislature will be asked to appropriate about \$200 more for expenses of the board, so that we shall have ample funds to do our work properly. When you recall the fact that only \$460 a year is appropriated for the expenses of the members of the board, postage, expressage, and incidentals, it will require no argument to convince you that we are not extravagant. The correspondence connected with this office is growing every year. No one will deny but that during the past two years the State Board of Health has been of great benefit to the people of this state in suppressing contagious diseases and advising health officers in all sanitary matters. As our sphere of usefulness and helpfulness grows, it necessarily follows that our expenses will grow in a proportionate measure. If this board is to be active, if it is to fulfil the purpose for which it was intended, we must not be crippled for funds with which to operate; so when the next legislature assembles the additional needs of this board will be placed before it. I anticipate no difficulty in getting a little larger appropriation.

The work which the State Board of Health has done during the past winter has been satisfactory. The health laws passed by the last legislature have certainly been beneficial in a marked degree. Of course, our work is largely along educational lines, as the legal authority of the board is limited. As an example of what the public-health law has done for this state, a few statistics concerning smallpox are presented: During the winter of 1900-'01 we had no quarantine law which was at all effective outside of the towns and cities of the state, so that, by the time the new public-health law went into effect, on the 15th of February, 1901, smallpox had become firmly established in many portions of our state. During the months of January, February, March, April and May of last year there were reported to this office 5497 cases of smallpox, with thirty-one deaths. During the corresponding months of this year there have been reported to this office 1953 cases, two deaths. These admirable results have been obtained by

untiring work and investigation on the part of municipal, county and state boards of health. In most parts of the state the municipal and county boards have been alive to the situation, and have strictly enforced the quarantine law. With respect to this disease, our state during the past winter has been in a much better condition than many of our neighboring states.

At the December meeting the secretary was instructed to notify Yost & Son, undertakers, of Hiawatha, that they must not use the firm's name in signing transportation permits when only one member of the firm has a license from the State Board of Health. In accordance with these instructions, I wrote Mr. N. C. Yost, stating that the board would not permit under any circumstances the firm's name to be signed to a transportation permit, when only one member of that firm was licensed by this board; also calling his attention to the fact that it was reported to this board that the body which was shipped from Hiawatha to Lincoln was not properly embalmed, and notified him that if the rules of the board were again transgressed by him the board would consider it sufficient ground for the revocation of his license. In reply to that communication, Mr. Yost stated that it certainly was a mistake on his part in signing the name of the firm to the transportation permit, and promised that no such oversight should occur again. He also enclosed a letter from Mr. A. R. Hall, undertaker, of Lincoln, which stated that the body referred to as shipped by Yost & Son was received in very fine condition, and that the family and friends were very well pleased that it had been so nicely preserved. Certainly, from Mr. Hall's letter, there was no just ground for complaint concerning the manner in which the body referred to had been embalmed. Afterwards, in taking the matter up with Mr. Hinthorn, who made the complaint that the body had not been properly embalmed, he replied that he had made no such statement; but the stenographic notes of the last meeting, as read to you to-day, show that Mr. Hinthorn did represent to the board that the body had not been properly embalmed. As he wrote me that he did not mean to make such a statement, I advised Mr. Yost that there was a possibility that the information which reached this office concerning the manner in which the body was prepared might not be absolutely correct, and I certainly was glad to give him the benefit of the doubt. I think Mr. Yost now understands what the rules of the state board require of him concerning the transportation of the dead and will cheerfully comply with the same.

Since the last meeting of the board the secretary has made personal visits to Stafford, Glen Elder, Oberlin, Beloit, Norton, Belleville, Hays City, Ellis, and Marysville. The necessity for the most of these trips was smallpox. I was requested by the county attorney of Marshall county to meet with their board of county commissioners at Marysville and make complaint personally to the board with reference to the failure of Dr. E. L. Willson, health officer of Marshall county, to do his duty as required by law concerning quarantine and disinfection of smallpox cases. I had made complaint to the county attorney, requesting him to have the board of county commissioners appoint a new health officer for that county. As the county attorney requested me to present the matter in person to the board, I did so, and the board, upon my recommendation, appointed a new health officer. This I considered very gratifying results, as great difficulty had been experienced in that county in controlling smallpox during the past winter, and the most of this difficulty arose from the failure on the part of the county health officer to do his duty.

I am also pleased to report that the board of county commissioners of Jackson county appointed a new health officer. The old health officer of that county, who

held the position for many years, never did his duty or assisted this board in any way, as Doctor Locke can testify.

During the latter part of April smallpox broke out in the State Reform School. So nearly as the infection could be traced, it was brought there by a boy who was committed to the school from Junction City. There were about sixty cases in all. In a short time the hospital will be fumigated and the quarantine raised.

During the past two years we have been advising all the state institutions concerning the places where smallpox existed, so that they might be very careful in receiving parties from the infected districts. This is the only state institution which has had an epidemic of this disease at any time during the past two years. No institution has had more than one or two cases. No deaths occurred from this epidemic at the reform school.

On the 20th and 21st of May just passed, the case of Tracey v. Pratt and Swan was heard in the district court of Hiawatha, Brown county, Kansas. You will remember this was a case of alleged illegal quarantine which was established by Doctor Pratt, of Hiawatha, at Horton, Kan., about January 15, 1901. I was implicated in the case by means of a telephone message, which instruction undoubtedly Doctor Pratt misunderstood. Captain Clad Hamilton, special assistant attorney-general, conducted my case. The plaintiff in the case, Miss Annie Tracey, was in Brown county up to within twenty-four hours of the trial of this case, but rather than appear in court she went to St. Joseph and gave her deposition there. When the plaintiff had completed her case the attorneys for the defendants demurred to the evidence and asked that the case be dismissed. This motion was sustained by the court. This decision also carried with it the case of Bridgett Tracey v. Pratt and Swan. In this case the mother of Miss Annie Tracey was also trying to collect damages.

The total expense to the State Board of Health in the trial of this case was \$60.70, which was paid out of the sanitary fund. While I have at all times disclaimed all responsibility concerning the manner in which these parties were quarantined, yet we are to be congratulated that the cases terminated so successfully in the district court and with such little expense to the board. I also feel very grateful to the attorney-general's office for the assistance which was gladly extended by that department. Within the last few days I have learned from reliable sources that the Traceys intend to carry their cases to the supreme court; so there may be a possibility that these cases will be ordered for retrial.

It is with deep regret that I am compelled to report to the board the death of Dr. C. E. Munn, bacteriologist of the State Board of Health, which occurred at Stormont hospital Saturday night, June 7, 1902. Doctor Munn had been seriously ill for severly months and was a great sufferer for a long time prior to his death. Doctor Munn was connected with the State Board of Health comparatively only a short time, yet his work in the capacity of bacteriologist had been of a high grade and was entirely satisfactory. He was very enthusiastic about his specialty and also in all matters pertaining to hygiene and sanitation. His death is certainly a great loss to our board.

Doctor Williston, who for many years has served the board as sanitary adviser, also severs his connection with the board. Doctor Williston has accepted a professorship in the University of Chicago and will leave in a short time to assume his duties in that institution. Doctor Williston's services have been most valuable to the State Board of Health, and we are sorry indeed to lose him as an advisory member of our board.

The following semiannual reports are submitted by the secretary and treasurer, respectively, of the embalmers' examining committee:

"To the State Board of Health: "HIAWATHA, KAN., May 26, 1902.

"GENTLEMEN—As secretary of the embalmers' examining committee, I beg to submit the following brief report. Only one examination has been held since the last semiannual report, in December, and this was in Kansas City, on January 10, 1902:

Number of undertakers examined at this meeting.....	17
Number of certificates granted.....	16
Number of applicants who failed to pass.....	1
Number of renewals since last report (for 1901).....	62
Number of undertakers reexamined.....	3
Number who paid fee and failed to appear.....	1
Amount received for examinations.....	\$75 00
Amount received for renewal fees (for 1901).....	62 00
Total.....	\$137 00

"The following bills were allowed and ordered paid:

January 11, J. M. Doyle, expenses and per diem, Kansas City meeting...	\$28 50
" 11, H. W. Gates, expenses and per diem, Kansas City meeting,	16 50
" 11, J. T. Barkley, expenses and per diem, Kansas City meeting,	20 50
" 11, E. O. DeMoos, expenses and per diem, Kansas City meeting,	20 50
" 11, <i>Brown County Republican</i> , printing.....	7 00
" 11, J. B. Hinthorn, expenses and per diem, Kansas City meeting, also salary as secretary, and incidentals.....	34 05
Total.....	\$127 05

"Since my last report, I have been informed that a feeling exists among some of the licensed embalmers in the state that their rights in shipping dead bodies are not protected as they should be, and the committee is earnestly hoping that a better law regulating the transportation of the dead will soon be passed in this state. As a committee, we can say the work is being done without partiality to any one and that harmony exists. In the last few months quite a number of undertakers have applied for private examinations, but all have been refused any such favors. Respectfully submitted. J. B. HINTHORN, *Secretary*."

"BELLEVILLE, KAN., June 7, 1902.

"To the State Board of Health:

"GENTLEMEN—As treasurer of the embalmers' examining committee, I submit the following report to your honorable board:

Balance cash on hand last report, December 16, 1901.....	\$164 89
Received of J. B. Hinthorn, examination fees, Kansas City meeting....	75 00
Received of J. B. Hinthorn, renewal fees (1901).....	62 00
Total.....	\$301 89
Paid out on warrants attached to secretary's report.....	127 05
Balance on hand at this date.....	\$174 84

Respectfully submitted. J. M. DOYLE, *Treasurer*."

"These accounts were audited and found correct.—W. B. SWAN."

"LAWRENCE, Kan., May 5, 1902.

"To the State Board of Health:

"GENTLEMEN—In accordance with instructions received from Dr. W. B. Swan on April 25 last, I visited the city of Burlingame to look into the sanitary features of a proposed scheme for a public water-supply. I met Mayor W. P.

Deming and a number of the councilmen and conferred with them. I found that the town had voted bonds for water and light plants, but these had not been sold and no contracts had been let. I found also that the authorities had not asked for the assistance of the State Board of Health, and were assuming that the local opposition to the building of a water-works plant was responsible for what was considered is some degree an interference. This view of the functions of the state board was changed, however, and the authorities seemed glad to have such advice as could be given.

"During last summer ten or twelve test wells had been bored just on the northwest edge of the town, which were pumped for a few hours only. These wells are situated in a somewhat gravelly soil, some twenty or more feet deep, lying above a quite compact shale, and near the outlet of a small drainage basin, part of which is occupied by a sparsely settled portion of the town. This soil is water-bearing, as is indicated by a good spring which lies a few hundred feet below the test wells, by the existing local wells, and by the test wells themselves. Though the wells are shallow, it is my judgment they would furnish water of a good quality, at least for some years to come. But I am not sure that the quantity would be adequate, as the tests were made too short to indicate any steadiness in ground-water flow. So the advice was given to make further tests and to make no large expenditure without these.

"There is a small stream on one side of the town which was dry in parts of its bed at the time of my visit, which might furnish an adequate supply through storage behind a dam, but such water would have to be filtered, an expense both in first cost and maintenance, to be avoided if possible.

"I found that the council had no definite plans and specifications drawn up by an engineer, and advised them to secure such, and to let their contract on such basis, the works to be built under an engineer's supervision, as being the wisest plan to secure the best and most economical results for their money. The plan, sometimes followed, of giving a contract to one who both designs and builds a plant furnishes no check or sufficient inspection on the quality of materials or the character of the work.

Respectfully submitted.

F. O. MARVIN."

"LAWRENCE, KAN., June 20, 1902.

"To the State Board of Health:

"GENTLEMEN.—Dr. M. A. Finley, a member of the common council of the city of Cherryvale, sent me a jug of water from a well drilled on the farm of John Blase, near that town, with the request for some opinion as to its suitability for a public supply. Under Dr. W. B. Swan's authority, this water was given a quantitative analysis by the board's chemist, Professor Bailey, with the following result:

	Grains per gallon.	Parts per 100,000.
Sodium chloride.....	51.459	88.10
Sodium bicarbonate.....	51.804	88.69
Iron bicarbonate.....	.584	1.00
Calcium bicarbonate.....	2.388	4.09
Magnesium bicarbonate.....	4.024	6.89
Totals.....	110.259	188.77

"The water is free from sulphates and is remarkable, says Professor Bailey, for its large amount of sodium bicarbonate, which gives it its alkaline character.

"Doctor Finley has sent me the log of the well, which is as follows: Soil, three feet; shale clay, thirty-three feet; lime rock, thirteen feet; blue shale, fifteen feet; gray limestone (hard), eighteen feet; dark-colored shale, four feet; lime and sand rock, thirty-nine feet—making a depth of 125 feet from surface

where the artesian flow of this water was found. Below this was twenty-three feet of blue shale, and then twenty-two feet of limestone, with no water. The flow is reported as truly artesian, coming to the surface and furnishing about one gallon per minute.

"This water seems to have unusual composition, being free from sulphates, and having so large a quantity of sodium and so little lime and magnesium. It probably has some medicinal qualities, but is hardly adapted for a public supply, being too strongly alkaline in character, and I have so advised Doctor Finley.

Respectfully,

F. O. MARVIN."

The following report concerning the water-supply of Hutchinson has been submitted by Prof. E. H. S. Bailey:

"LAWRENCE, KAN., June 21, 1902.

"Dr. A. M. Hutchinson, Chairman City Board of Health, Hutchinson:

"DEAR DOCTOR—The following is the analysis of the sample of water recently received from you, and taken from your city mains:

SANITARY ANALYSIS.

	Parts per million.
Color.....	None.
Odor.....	Practically none.
Taste.....	Normal.
Reaction.....	Slightly alkaline.
Total mineral matter by evaporation.....	656.000
Loss on ignition.....	74.000
Free ammonia.....	.017
Albuminoid ammonia.....	.078
Nitrogen as nitrates.....	.068
Nitrogen as nitrites.....	a distinct trace.
Chlorine.....	145.000
Hardness.....	346.500

MINERAL ANALYSIS.

	Parts per 100,000.	Grains per gallon.
Silica and insoluble residue.....	1.50	.876
Iron oxide.....	.25	.145
Magnesium sulphate.....	7.98	4.661
Calcium sulphate.....	8.78	5.128
Calcium carbonate.....	18.00	7.594
Sodium chloride.....	23.93	13.978
Sodium carbonate.....	.96	.561
Sodium sulphate.....	trace.	trace.
Totals.....	56.40	32.948

REMARKS.

"The above analyses show that the water is quite free from the ordinary forms of 'organic matter.' Both the free and albuminoid ammonia are within the limits for waters of this class. The chlorine is not high, especially considering the fact that there is so much salt beneath the surface of the soil. Comparing this analysis with that of the Hutchinson Reformatory, an analysis of which was made last year, it appears that in many respects the city water is better than that.

"In regard to the mineral analysis the solids are low; lower, in fact, than many of the waters used in this state for city supply. The amount of encrusting material, such as calcium and magnesium salts, is not so large, so that as a boiler water the supply is good. Though there is some common salt, this is not larger in amount than that of the Kansas river, and would not be considered large.

"Referring to the disagreeable taste and odor in the water, this so readily evaporates that, when the water was received at the laboratory, it was impossible to detect anything. I am somewhat familiar with the location of the wells and gas-works in Hutchinson, and know that the taste is very disagreeable when the

water is freshly drawn. There seems to be little doubt that the cause of the bad taste in the water is the contamination of the underflow by material from the gas tank or the leaking of tarry material from the joints of the pipes.

"It was hoped that the sinking of new wells by the water company at a greater distance from the gas-plant would remedy the evil permanently, as I understand it did temporarily. The project to replace the gas-holder by a new one, and thoroughly cement the bottom of the well, is a good one and may remedy the trouble for a while.

"It seems, however, that ultimately the solution of the difficulty will be by getting the water-supply at a greater distance from the gas-works. If, as I believe, a part of the trouble comes from the material that escapes from the joints of the gas-pipes, then the water must be drawn from a district where there are no gas-pipes in the soil. I am led to this opinion from the fact that the wells east of the plant have the disagreeable odor, and have had it for years, so that their use has been abandoned.

"As near as I can ascertain, wells at a distance from the gas plant or mains, and also the reformatory wells, do not show the odor of gas. If there was natural gas or oil in the soil, it would be more extensively distributed, no doubt. Besides, the taste of the water is that of naphthalene, a product of distillation of coal, and not of kerosene, a product of the distillation of petroleum or rock oil.

"As to the unwholesomeness of the water, I can find no authority for the belief that the extremely small quantity of the material in the water would be injurious. On the other hand, as the water is disagreeable to the taste, common sense would indicate that this condition should be changed as quickly as possible.

Yours sincerely, E. H. S. BAILEY."

During the session of the last legislature a bill was prepared under the supervision of Professor Marvin, giving the State Board of Health additional authority and imposing duties upon it with reference to the public water-supply and sewerage systems of the state. This bill was prepared so late in the session, and so many bills had already been introduced, that it had no chance to be acted upon by the last legislature. We hope at the next meeting of the board to have this bill in such a shape that it can be indorsed by the State Board of Health and have the same introduced in the next legislature at the earliest possible moment. The more investigation which is made by our advisory board concerning the public water-supplies and sewerage systems of the state convinces us that this work should be under the supervision of the State Board of Health. We already know that pure water and the proper sanitary disposal of sewage will lessen to a great extent the prevalence of many of the zymotic diseases. As the State Board of Health during the past two years has been a great factor in assisting the county and municipal boards of health in preventing and controlling the spread of contagious diseases, it seems to me it is an opportune time for us to seek this legislation. While we may not be able from the next legislature to obtain a sufficiently large appropriation to begin at once upon the investigation of the water-supply of our state, yet, if we are only able at the coming session of the legislature to obtain the enactment of a suitable law covering this feature of our work, we will have advanced a great step in the end desired. Subsequent legislatures can make adequate provision to carry on this work. Respectfully submitted.

W. B. SWAN, *Secretary.*

THIRD QUARTERLY MEETING.

The regular September meeting of the Kansas State Board of Health was called by the president, J. M. Minick, of Wichita, for September 4, for the purpose of attending the funeral of the late secretary, William B. Swan, M. D., for the election of a secretary as a successor, and for the transaction of any other business that might come before the board. Members present were: Drs. J. M. Minick, S. J. Crumbine, B. J. Alexander, A. S. Gish, G. W. Hollembeak, and Chas. Lowry.

The following letters were received from Doctor Gardner and Professor Marvin:

Dr. Chas. Lowry, Topeka, Kan.:

GREENLEAF, KAN., September 4.

DEAR DOCTOR—Your letter giving account of the untimely death of the late Doctor Swan received, and I hasten to send my regrets. He will be missed as a member of the State Board of Health, as a member of the medical association, and as a valuable member of society. Owing to sickness, I will not be able to attend the funeral and the election of a new secretary, but will meet with the board at its next regular meeting. Fraternally yours, M. N. GARDNER.

LAWRENCE, KAN., September 3, 1902.

Dr. Chas. Lowry, Topeka, Kans.:

DEAR DOCTOR—I was surprised by your note announcing the death of Doctor Swan. The state has lost a faithful and efficient servant; one who was energetic in promoting the public good. I think his work has dignified the position of the Board of Health, and created a respect for its field and its rulings that did not exist in the same degree before his incumbency.

Personally, I feel that I have lost a friend with whom I have had only pleasant relations. I would like to be present at the funeral, but think that I can hardly leave here just at this time. I thank you for your kindness in sending me word of the sad event. Respectfully, F. O. MARVIN.

The members attended the funeral at the residence at two P. M. After the funeral services, the board met to transact such business as regularly comes before the board. Owing to the recent death of the secretary, the minutes of the last meeting were not read, nor a report of the work of the past three months given. The board proceeded first to the election of secretary, and Doctor Lowry was nominated by Doctor Crumbine. The nomination was seconded by Doctor Hollembeak. Remarks were made by Doctor Alexander, and rules were suspended and Doctor Lowry was elected secretary by acclamation. Doctor Lowry then made a few remarks, thanking the board for the courtesy shown him.

After the election, a committee consisting of Doctors Crumbine, Hollembeak and Gish was appointed to draft suitable resolutions on

the death of the late secretary, and the following resolutions were read by Doctor Crumbine and adopted by the board :

WHEREAS, A great calamity has befallen this board in the untimely death of its most-efficient and well-beloved secretary, Dr. William B. Swan: therefore, be it

Resolved, That in the death of Doctor Swan we have suffered a most grievous loss, and the state is deprived of one of its best citizens and public officials. His erudition, his zeal for the public welfare, his invariable courtesy and kindness towards all with whom he came in contact, his splendid executive ability, his unswerving devotion to duty, his high moral and manly character, all combine to make our loss unusual and irreparable. And while we deeply deplore his loss, we beg to assure his family of our deepest sympathy in their profound sorrow and unspeakable grief.

Resolved, That a copy of these resolutions be transmitted to the bereaved family, with the assurance that what human sympathy can do for the mitigation of sorrow it is our wish and will to do in this hour of unutterable grief and woe.

Resolved, That this board attend the funeral in a body.

S. J. CRUMBINE, M. D.

G. W. HOLLEMBEAK, M. D.

A. S. GISH, M. D.

Upon motion, the board adjourned, to meet at the call of the secretary.

The following bills were audited and allowed :

G. W. Hollembeak.....	\$25 40
J. M. Minick.....	15 40
A. S. Gish.....	7 22
S. J. Crumbine.....	22 53
B. J. Alexander.....	8 60
Total.....	\$79 15

FOURTH QUARTERLY MEETING.

The fourth quarterly meeting of the Kansas State Board of Health was held in the parlors of the Carey hotel, at Wichita, December 19, 1902. The meeting was called to order at ten A. M. by the president, Dr. J. M. Minick. The following members were present and replied to roll-call: Drs. G. E. Locke, A. S. Gish, J. B. Dykes, S. J. Crumbine, and M. N. Gardner. The following advisory members were also present: Prof. F. O. Marvin, Prof. E. H. S. Bailey, and Dr. Sara E. Greenfield.

As the minutes of the June meeting were not read at the September meeting, they were first called for, read, and approved, and, following, the minutes of the September meeting were also read and approved. The quarterly report of the work of the office was then read by the secretary. Some discussion followed in regard to the adoption of the

report of the secretary and treasurer of the embalmers' examining committee, which was included in the quarterly report, and, by resolution, the report was adopted, except that part which contained the reports of the secretary and treasurer of the embalmers' committee, which was submitted to a special committee for consideration. The committee appointed by the president to consider these reports was Doctors Locke, Gardner, and Gish.

Following the reading of the report and its adoption, the resolutions of Doctor Greenfield, contained in the quarterly report, for the introduction of a bill in the coming legislature asking for a state laboratory, was taken up and discussed. It was moved and carried that a bill be prepared for the purpose of establishing a state laboratory, and that the bacteriologist of the board be placed on a salary.

Under the head of new business, the proposed measure, which has been considered for the past year or so, to give the board more authority over public water-supply and sewage systems, was taken up. Professor Marvin, the sanitary and civil engineer of the board, made some remarks, showing the necessity for the proposed legislation. Heretofore, the State Board of Health has had only advisory control but no authority in the matter. Professor Marvin then read the following bill that he had carefully prepared, in which he copied largely from the law on the subject of the states of Massachusetts, New York, and Ohio:

AN ACT conferring additional authority and imposing additional duties upon the State Board of Health with reference to public water-supplies and sewerage systems, and imposing penalties for violation of or non-compliance with the provisions thereof.

Be it enacted by the Legislature of the State of Kansas:

SECTION 1. That in order to promote and preserve the public health, the State Board of Health shall be and hereby is charged with the sanitary supervision and control of all waters within the boundaries of the state, both surface and underground, that are now or may be hereafter used as sources of public water-supply for domestic and culinary purposes; that the said board be and is hereby also charged with the sanitary supervision and control of the methods and means now or hereafter to be used in this state for the collection and disposal of sewage.

SEC. 2. The State Board of Health may from time to time, as it may deem expedient and as the necessary funds may be provided by act of legislature, cause examinations to be made of any waters of the state in order to ascertain whether the same are adapted for the purposes of a domestic water-supply, or are in a condition likely to impair the interests of the public or persons lawfully using the same, or to imperil the public health. It shall also have authority to conduct experiments to determine the best practicable methods for the purification of water or sewage. For the aforesaid purposes, it may employ such expert assistance as may be necessary.

SEC. 3. No system of public water-supply or sewerage shall be constructed, extended or changed by any city, town, corporation in this state, or by any person or persons, until the plans and specifications for such system of water-supply or

sewerage, or the proposed extension or change thereof, shall have been submitted to the State Board of Health and have received its approval or that of its duly authorized officers or agents; and the said board may establish rules and regulations in accordance with which such plans and specifications shall be drawn. The said board shall also make, or cause to be made, sanitary investigations and analyses as to the fitness for domestic and culinary purposes of any water or waters which it is proposed to use as a source of public water-supply before such water shall be delivered to consumers. The said board shall also have the right at any time to make sanitary investigations of the character of any water or waters in this state used for public water-supply. A certificate of the finding of the board shall be issued to the city, town, corporation, person or persons submitting plans and specifications for approval or water for sanitary analyses, which certificate shall be signed by the duly authorized officers or agents of and attested by the seal of the board. The said board shall establish fees for certificates of their findings, and which shall be paid to the secretary of the board before such certificates are issued; provided, that no fee for any certificate shall exceed the sum of twenty-five dollars. The funds so collected shall be used by the board only toward defraying the cost of investigations and analyses under the provisions of this act.

SEC. 4. All sanitary analyses of water or sewage required by said board under the provisions of this act shall be made at the University of Kansas, by the proper officer or officers in charge of the laboratories of said institution; and the sworn statement of the results of such analyses, under the seal of the University, shall be competent evidence in all courts of the state, and shall be *prima facie* evidence of the matters therein stated so far as relating to the conditions of water or sewage existing at the time such analyses were made.

SEC. 5. The State Board of Health shall elect a consulting sanitary engineer, whose term of office shall be two years, and who shall serve until his successor shall have been elected and qualified. It shall be the duty of said engineer, under the direction of said board, to examine all plans and specifications for public water-supply and sewerage systems, or extensions or changes thereof; and he shall perform such other duties as may be assigned to him from time to time by said board. He shall make reports of all of his official acts to the secretary of said board before each of its regular quarterly meetings. The board shall fix the compensation for his services, which shall be paid out of the regular appropriations of the board.

SEC. 6. For carrying into effect its sanitary supervision and control of the waters of the state, and the public water-supply and sewerage systems of the state, the said board shall have the right to establish general rules and regulations, and such special rules and regulations as may be necessary under this act, for the government of particular cities, towns, corporations or persons maintaining systems of water-supply or sewerage.

SEC. 7. All general rules and regulations established by said board under this act shall be published at least once in the official state newspaper, and certified copies thereof shall be sent by said board to the clerks or secretaries of all cities and towns of the state, and to any corporations, person or persons maintaining water-supply or sewerage systems in this state. Certified copies of all special rules and regulations shall be sent by said board to the clerks or secretaries of all cities, towns, or corporations, or to any person or persons maintaining water-supply or sewerage systems that may be directly affected thereby. The secretary of said board shall keep a record in his office of all such notices and a certified sending of such notice to those interested therein.

SEC. 8. The said board is hereby authorized to make such inspection as may be necessary to determine whether its rules, regulations or instructions under this act are complied with, and if such inspection discloses any violation of any rule, regulation or instruction of said board, the secretary of the same shall cause a copy of said rule, regulation or instruction to be served upon the city, town, corporation, person or persons violating the same, with a notice of such violation; and if such city, town, corporation, person or persons shall fail to comply with such rule, regulation, or instruction, or fail to show cause satisfactory to said board why the same should not be observed, within ten days after the service of such notice, the said board may maintain an action before any justice of the peace or any court of record in the county where such violation occurs against such city, town, corporation, person or persons for recovery of the penalties hereinafter prescribed for such violation; and also the said board, upon proper showing, may have an injunction restraining such city, town, corporation, person or persons from the continued violation of such rules, regulations, or instructions.

SEC. 9. The penalties for any violation of or non-compliance with the provisions of this act, rules, regulations or instructions of said board promulgated thereunder shall not be less than \$50 nor more than \$200 for each and every violation or non-compliance.

SEC. 10. The State Board of Health shall annually report to the governor of the state all of its acts under the provisions of this act, and such report shall be published in connection with other reports of said board and in the same manner as other public documents.

SEC. 11. All acts or portions of acts in conflict with the provision of this act shall be and the same are hereby repealed.

SEC. 12. This act shall be in full force and effect from and after its publication according to law.

It was then moved and carried that the board make every effort to have this bill enacted into law.

The following paper was read by Prof. E. H. S. Bailey, chemist of the board:

To the Board of Health of the State of Kansas:

GENTLEMEN—Your attention is called to the advisability at this time of inaugurating a systematic examination of the rivers of this state, with reference to their purity and wholesomeness as sources of water-supply. Some years ago, in connection with Doctor Franklin, of the University, I made a careful analysis of the waters of the Kaw valley system, during the winter stage of the water. More recently Doctor Bartow, also of the University, has made and published analyses of the river at Lawrence; the analyses being made in several different months. In connection with the division of hydrography of the United States Geological Survey, we have just undertaken the sanitary analysis of the water of the Kaw river, taking samples from three places in the river every month.

So much, then, of a beginning for this work has been made. We should, however, start the systematic examination of the waters of the state, including whatever streams now are or may be later used as sources of public supply. In order to do this, a certain amount of money will be needed annually, to more fully fit up the water-analysis laboratory, and perhaps that in bacteriology, to pay the

expenses of collecting samples at least once a month from the different localities, and to pay for help of assistants in doing the work.

Work of this character comes very properly under the direction of your board, and would form a very valuable part of its publications. It would emphasize the work that you are doing for the good health of the people of the state, and would prove of great value to the cities which now use the streams of the state for a water-supply, or which may in future use them.

For this purpose, therefore, it is suggested that a sum of \$1000 per annum, for the next two years, be included in your budget of requests from the legislature, with the understanding that the work shall be done under the direction and by the order of the State Board of Health. Respectfully submitted.

E. H. S. BAILEY.

The paper was quite generally discussed, all agreeing that the work would be a great advantage from a sanitary standpoint, but it was questioned if the appropriation of \$1000 a year could be made, and as the board was going to ask so much of the legislature, the general feeling was that this question had better lay over for the present.

The secretary of the board then stated the advantages of having an attorney on the board, and it was moved and carried that the law creating the board of health be so amended that the governor could appoint one layman, preferably an attorney interested in sanitary science, as a member of the State Board of Health.

The board then adjourned, to meet at 1:30 in the afternoon.

After the noon intermission the board was called to order by the president, and the committee, Doctors Locke, Gardner, and Gish, who were appointed to consider the requests made by the president and secretary of the embalmers' examining committee, made their report. They reported that, as the embalmers' certificates of the state of Kansas had been refused recognition by the State Board of Health of Illinois, for the reason that the examining committee had not required of their applicants an examination on the cadaver, in the future a part of each examination of undertakers should be made on the cadaver. The committee reported adversely to the request of the president and secretary of the embalmers' committee for permission to raise the annual dues from one dollar to two dollars. The report of the committee was accepted.

Doctor Gardner made a motion that the secretary should include in his budget of expenses to the coming legislature a sufficient amount to pay a per diem to each member of the State Board of Health during their meetings. There were remarks made on the subject by different members and the motion was unanimously carried.

Upon motion, the board adjourned.

The following bills were audited and allowed :

A. S. Gish.....	\$8 57
Chas. Lowry	16 35
S. J. Crumbine.....	13 97
G. E. Locke.....	17 50
J. B. Dykes.....	15 44
M. N. Gardner	13 80
Total.....	\$85 63
Sara E. Greenfield.....	\$17 50
F. O. Marvin.....	16 80
E. H. S. Bailey.....	16 55
Total.....	\$50 85

CHARLES LOWRY, M. D., *Secretary.*

SECRETARY'S REPORT.

Mr. President and Members of the Kansas State Board of Health:

GENTLEMEN—The work of the secretary for the quarter beginning September 1 has been largely routine work, keeping in touch with county health officers, and receiving weekly reports from any part of the state where there were epidemics prevailing that were worthy of being reported, also receiving quarterly reports when due, and statistics, both from county clerks and county health officers. There has been no large amount of smallpox nor any epidemic that necessitated my going out to any part of the state, except in one instance.

On Thursday, November 6, in reply to a request of Doctor Beals, county health officer of Wabaunsee county, I went to Maple Hill for the purpose of settling a dispute in regard to the diagnosis of suspected cases of diphtheria. There are two physicians practicing at Maple Hill, one diagnosing the cases of sore throat that were prevailing to be diphtheria, and the other dissenting, claiming the cases were simply non-malignant sore throat, and not diphtheritic. Upon examining the cases with Doctor Beals, we had no hesitation in pronouncing them diphtheria and of a rather malignant character, though no deaths up to that time had occurred. The cases had not been quarantined, and children where there was diphtheria in the family had been allowed to mingle with other children and to attend school. A rigid quarantine was established, and I directed the school to be closed and the schoolroom thoroughly disinfected.

Later I received the following letter from Doctor Menard, one of the physicians at Maple Hill:

"MAPLE HILL, KAN., November 17, 1902.

"*Dr. Charles Lowry, Topeka, Kan.:*

"DEAR DOCTOR—Yours of the 13th received, and in answer to same will say that up to date no deaths, but had to resort to the serum on three of my cases. Results were far beyond my expectations. Have had no trouble in maintaining quarantine. I think we have the disease checked.

Yours sincerely, C. E. MENARD, M. D."

The outlook for the fall and winter in regard to smallpox, which has prevailed to such an alarming extent the past three years, is very encouraging at the present time. In September of the present year we had reported to this office 10 cases of smallpox; one year ago the same month there were 28 cases. The month

of October this year only 6 cases were reported, and one year ago in the corresponding month there were 244 cases. In November of this year only 14 cases were reported, and 137 cases in the same month last year. This probably does not represent accurately the condition of things for both years. From the fact that there were so few cases this year, county and municipal health officers were undoubtedly a little negligent in reporting the same, but it is evident that the epidemic that has been so severe the past three winters has spent its force, and we are also getting good results from the stringent quarantine law that was passed two years ago.

About the 1st of December I learned that smallpox had been prevailing to quite an alarming extent in the city of Argentine, near Kansas City. The municipal and county health officers had made no report to this office. The epidemic had become so malignant that my attention was called to it by Doctor Morrow, secretary of the Missouri Board of Health, who was considering the matter of quarantining against the city. I at once wired the health officer of Wyandotte county, also the city health officer of Argentine, to learn the true condition of things, and found, through them, that the situation had been fairly represented, and that there had been during the past three months something over thirty cases, with twelve deaths, but at the present time there were only two cases, both rigidly quarantined, the others being practically convalescent. I directed Doctor McClure, the Argentine health officer, to report to Doctor Morrow, and have since received a communication from him assuring me that he was perfectly satisfied with the report.

I wish, in this connection, to commend county health officers generally for their fidelity to duty towards the state. A large majority of county physicians are prompt and conscientious in reporting to this office every matter of which the State Board of Health should have knowledge, also in distributing blanks to physicians and collecting and reporting vital statistics. I regret, however, that there are some notable exceptions to this rule. In one or two of the largest counties of the state the county health officers have apparently entirely neglected the work which, according to law, they are bound to do. I think a little judicious legislation on this subject is most important at the present time.

I hereby submit the following correspondence pertaining to sanitary matters in the state:

"LAWRENCE, KAN., September 25, 1902.

"*Dr. Charles Lowry, Topeka, Kan.:*

"DEAR SIR—I have just received a request for analysis of water from Mr. B. F. Pugh, of Ottawa, who has typhoid fever in his family. The analysis of his well can be made for seven dollars. If you think this a legitimate analysis for the state to pay for, I will write him to that effect. E. H. S. BAILEY."

To this letter I replied as follows:

"*E. H. S. Bailey, Lawrence, Kan.:* "TOPEKA, KAN., September 28, 1902.

"DEAR SIR—Yours of recent date, regarding examination of well-water for B. F. Pugh, of Ottawa, who has typhoid fever in his family, duly received. I took the matter up with the attorney-general, as to the authority that I had to authorize such examination, and his judgment was that I had no authority to authorize it, and that to do so would be establishing a bad precedent, as any one of the hundreds who are having typhoid fever in their families would call upon the state to see if the water they were using was contaminated. If it were a public institution, or affected a community, the matter would be entirely different and I would feel it my duty to call upon you to make such examination.

Sincerely yours. CHARLES LOWRY, M. D., *Secretary.*"

The instructions to county health officers found on page 88 of the last annual report I think will cover the ground in such cases. Besides, I believe that county health officers, who are always accessible and can go over the ground and see the relation of wells to cesspools, privy vaults, or stables, are perhaps as well able to judge of the purity of water as even a chemist who analyzed the water without knowing the surroundings of the well from which the water was taken.

Touching a similar question, I later received from Doctor Greenfield the following letter:

"Doctor Lowry, Topeka, Kan.:

"HIAWATHA, KAN., October 15, 1902.

"DEAR DOCTOR—I have examined a specimen of sputum for tuberculosis, but I do not know whether it can be classed as state work or not, as it was not sent in by a member of the Board of Health. I have also received a specimen of a tumor. The physician who sent it expected me to examine it free to him. I told him it could not be considered as work for the state, as it was not a contagious disease and did not endanger the public health. Very few understand what the duties of the bacteriologist are, and I confess that I am not sure that I know them myself, as Doctor Swan did not send me any instructions.

Yours truly, SARA E. GREENFIELD."

To this I sent the following reply :

"TOPEKA, KAN., October 18, 1902.

"Dr. Sara Greenfield, Hiawatha, Kan.:

"DEAR DOCTOR—Your letter of October 15 duly received. The cases you speak of where examinations have been requested, one for tumor, the other for sputum, are similar to a request made a few days ago where a party having a case of typhoid fever in his family had requested the state chemist, Professor Bailey, to make a chemical analysis of the water of his well. You can readily see that, in all cases of this kind, if the state should examine the water where there is typhoid fever in the family, it would be establishing a bad precedent, and the expense fund of the State Board of Health would have to be materially increased; so the matter was referred to the county health officer of the county where complaint was made, who receives a salary for his work. If the state should be charged up with this work there would be no limit to the expense. Wherever, as you state in your letter to me, public health is endangered, these examinations should be made through the state bacteriologist or chemist. I think in cases where members of the Board of Health or the secretary refer specimens to you for examination you can make out a bill and it will be paid; or any physicians of state institutions requiring such work done, it can be done through this office and your fees allowed. I believe this will cover the ground that you inquire about. Please let me hear from you, and let me know if this is your idea of your duties as bacteriologist of the State Board of Health.

Very truly yours,

CHARLES LOWRY, *Secretary.*"

ABATING PUBLIC NUISANCES.

I find upon investigation, in a matter where aid of the State Board of Health has been solicited, that we have much less authority or power in the abating of public nuisances than we ought to have. On the 16th of October I received the following letter from Dr. W. M. Earnest, county health officer of Washington county:

"Dr. Charles Lowry, Topeka, Kan.:

"DEAR DOCTOR—At Clifton a Mr. Chas. Harbaugh and brother maintain a feed-lot within a few rods of the residence of A. J. Banner. Mr. Banner made complaint to me as health officer about June 25, and I made a trip to investigate. I found a muddy, foul-smelling lot near the residence of Mr. Banner, and it was no doubt a source of much discomfort and possible ill health. At that time Mr. Harbaugh agreed to change his feed-lot and keep the place in a sanitary condition. Since then I have heard nothing more from him until to-day, when the same complaint is made. Several other parties, including a physician, wrote me during the summer that something should be done. I had some correspondence with Doctor Swan in regard to the matter. I believe there is some personal feeling in the matter, which must be taken into consideration; yet Mr. Banner had good ground for complaint last summer. Please instruct me what to do, if anything. I have given you the names of the parties concerned and you can correspond with them if you wish. I could meet you at Clifton if necessary.

Respectfully, W. M. EARNEST."

To this letter I made the following reply:

"TOPEKA, KAN., October 17, 1902.

"Dr. W. M. Earnest, Washington, Kan.:

"DEAR DOCTOR—Yours of October 16 received. You have the Sixteenth Annual Report of State Board of Health. The rule of the board which might apply in this case is rule VIII. You know the circumstances and can judge yourself whether it will apply in the case complained of. From what you write me, I doubt if it will; but I will write Mr. Harbaugh and brother, and tell them that complaint has been made and ask them to abate the nuisance. I am in doubt whether they can be forced to do it. You say it is within a few rods; the rule says within thirty feet of any inhabited house. We will try and see what a letter to Mr. Harbaugh will accomplish. Very sincerely,

CHARLES LOWRY, *Secretary.*"

Following is the letter sent to Mr. Harbaugh:

"Mr. Chas. Harbaugh, Clifton, Kan.:

"MY DEAR SIR—Complaint has been made at this office that you have a feed-lot a short distance from the residence of A. J. Banner that is in such unsanitary condition as to be a nuisance, it being foul-smelling, etc. If such is the case, I trust you will lose no time in abating the nuisance, as the State Board of Health is required to look into matters of this kind and to see that all such nuisances are abated. I will, however, refer this to you to look after, and trust you will do so and avoid further trouble. Very truly yours,

CHARLES LOWRY, *Secretary.*"

To this Mr. Harbaugh replied as follows:

"Charles Lowry, Topeka, Kan.: "CLIFTON, KAN., October 20, 1902.

DEAR SIR—Your letter of the 17th, calling my attention to a complaint about my feed-yard, filed with you by A. J. Banner, is here. Responding, I beg to say that it is a mistake about this yard being foul and ill-smelling. I have a yard on the east of town, outside the corporate limits. I am not keeping stock in there except to corral at night. Have not had any hogs in there since the last of May or first of June. Mr. Banner moved there since the yard was built and we have never had a complaint before. The yard is as healthy and sanitary as any barn-yard and I shall try and keep it that way. Yours truly,

CHAS. HARBAUGH."

Nearly a month later Mr. Banner came to Topeka for the purpose of consulting with me in regard to the matter complained of in the correspondence, and together we went to the attorney-general, who agreed with me that the State Board of Health had no authority in the matter, and his only recourse was to have the county attorney bring suit against the parties for maintaining a nuisance. The case is no doubt in litigation.

VITAL STATISTICS.

There has been considerable correspondence of one character and another carried on since the last quarterly meeting in regard to the collection of vital statistics. I regard this subject the most important and difficult problem the State Board of Health has to contend with at the present time. There is an attempt made in all states to collect vital statistics. Under the laws of some states they are more successful than in others. In our own state, under the present law, so far the work has been imperfect and only partially done. There is very great need of a new law on the subject, compelling physicians to make more accurate birth and death reports to county health officers, and compelling county health officers to send such reports regularly to the State Board of Health. In some instances physicians are so negligent in reporting that the county health officers do not consider it of any importance to make any report whatever to this office, although a very large majority send us quarterly reports of the returns that are made to them. It is a well-known fact that many of the leading physicians of large cities never pretend to make any reports whatever. Learning that Mr. H. L. Moore, of Lawrence, had interested himself in regard to this matter, I wrote him for his opinion on the subject, and received the following reply, which I think worthy of consideration:

"LAWRENCE, KAN., October 2, 1902.

"*Charles Lowry, M. D., Topeka, Kan.:*

"DEAR DOCTOR—In answer to yours of the 27th. The affidavit to procure marriage license in this county shows but one thing, viz.: That the parties are not related within the prescribed degrees of consanguinity. I enclose blank No. 1. When the license is returned, if returned at all, it shows but one thing—the facts that the parties were married. No. 2.

"The affidavit to procure a marriage license should show all the facts embodied in blank No. 3. This will furnish a complete identification of the parties, and that is very important. Blank No. 1 fills all the requirements of the statute, and if anything better is done it will have to be done by a new law. There should be a penalty for failure to return the marriage license to the probate judge.

"Doctors and midwives should be paid a small sum for reporting births to the proper county officer, and should be deprived of their license to practice on failure to do so. I do not think these records should be kept with the county clerk, but with the probate judge, though perhaps the health officer will do as well.

"I think it should be made a penal offense for any one to bury a dead body without a permit. I would require the doctor to leave a death certificate with the family. With that they should call on the township trustee for the permit, and he should send the death certificate to the proper officer at the county-seat.

"In the cities where the council control the cemeteries the city clerk now issues burial permits on the certificate of the doctor. The idea is to extend this system to the county districts.

"This, in short, is the legislation that I think ought to be effected.

Very truly yours,

H. L. MOORE."

In conversation with our probate judge, I learned that, as important as it is to have correct records of marriages, where many times reputation and property are at stake, even these statistics are incomplete. He showed me on his books a number of instances in which application for license to marry was granted and no record made afterwards of marriage of party who had procured the license, and other instances in which parties claimed to have been married where no record was made in his office of such marriage. I think at the coming session of the legislature there should be, if possible, a bill passed which would enable us to have our vital statistics more complete and reliable.

In November the following letter was received from Doctor Greenfield, bacteriologist of the board:

"*Doctor Lowry, Topeka, Kan.:* "HIAWATHA, KAN., November 18, 1902.

DEAR DOCTOR—I have sent you an article which I wish you would present to the State Board of Health at its next meeting. I hope that you and the board will pardon me if I have presumed too much in sending this, for I feel that what I have recommended is certainly worthy of your consideration. Under the present conditions the work of the bacteriologist is of little or no value. The little work that is done does not accomplish the end I think it should. I have been reading quite extensively on the subject, and I find that the great majority of the states have a state laboratory. We have the microscope, and with a very little expense we could have a very good laboratory.

"I am greatly interested in the 'anti-tuberculosis crusade' that is being started. Russia, England, Germany and, in fact, all the civilized countries are in the movement. I believe that it will do great good. We can certainly limit the spread of the disease, and, perhaps, in time practically stamp it out of existence. And this can be done without causing any hardship to the consumptive or the family of the consumptive.

"If the board sees fit to act upon my recommendations, could it not be arranged so that a salary could be paid the bacteriologist? The board might specify that a certain amount of work must be done, and pay a salary when the conditions have been complied with.

"Missouri pays its bacteriologist fifty dollars per month. I do not know just what they are doing concerning tuberculosis, but I know they are doing something. You will see by the newspaper clippings which I have pinned to the paper that Missouri has an anti-tuberculosis society, and I understand there is to be a bill presented to the Missouri legislature this winter asking for an appropriation for a tuberculosis sanitarium.

"Now, I do not want the board to consider for a moment the selfish interest that I may have in this. I want the proposition to stand on its own merits.

Yours very truly.

SARA E. GREENFIELD."

The following is a copy of resolutions presented to the board by Doctor Greenfield:

"*To the State Board of Health, Topeka, Kan.:* "HIAWATHA, KAN.

"GENTLEMEN—The causation and prevention of tuberculosis has engaged unusual attention from the medical world during the past two years, and, as a result of careful investigation, our scientists have become fully convinced that consumption ranks first among the contagious diseases of our country, both as to the danger of infection and as to the number of its victims.

"Edmond Vidal says that the struggle against tuberculosis is the *true social question*, and far more important than an eight-hour day.

"The various congresses of tuberculosis, the sanitarium for the treatment of tubercular patients and the segregation of tubercular inmates in our hospitals all bear witness to the mighty effort that is being made to impress both the profession and the people with the danger arising from the lack of proper sanitation in this disease.

"The following is copied from the resolutions passed by the American Public Health Association at its twenty-ninth annual session:

"*Resolved*, That this association, while desiring to express its positive opinion as to the importance of dealing with infected animals and their products, as indicated in the preceding resolutions, does, at the time, insist upon the necessity of dealing with the still greater dangers, now universally recognized, of the transmission of tuberculosis from one person to another by continual personal association, through inhalation of air of infected living-rooms, the contamination of clothing, handkerchiefs and similar objects with sputum and other secretions, and would therefore urgently recommend that municipalities adopt regulations as follows:

"1st. Against expectoration on pavements and in other public places.

"2d. For the compulsory notification by physicians of cases of tuberculosis, in order that literature may be supplied to the householders and municipal aid given where necessary, to lessen the danger to the families of infected persons."

"In order that Kansas may join this work of stamping consumption out of existence, it is necessary that the people be educated in the proper methods of protecting themselves against the disease.

"As a means of securing more general knowledge upon the subject, the following is recommended:

"1st. That the work and usefulness of the bacteriologist of the State Board of Health be extended by the establishment of a state laboratory, which shall be under the direction of the State Board of Health.

"2d. That it shall be the duty of the bacteriologist to examine and report on all specimens of contagious diseases sent to the laboratory for microscopical diagnosis.

"3d. That all cases of tuberculosis be reported and that a sanitary bulletin be sent to the physician having charge of the case, who shall deliver it to the parties taking care of the infected person.

"4th. That in cases of suspected tuberculosis it be made compulsory that the physician procure a microscopical diagnosis of the sputum, in order to ascertain if the individual has become a menace to the public health.

"5th. That an appropriation for the salary of the bacteriologist and the expenses of the department be asked for at the meeting of the next legislature.

SARA E. GREENFIELD."

The following report is submitted by the secretary of the embalmers' examining committee:

"HIAWATHA, KAN., December 8, 1902.

"*To the Kansas State Board of Health:*

"GENTLEMEN—I herewith submit, in brief, my semiannual report as secretary of the embalmers' examining committee of Kansas:

Number of meetings since last report, in June.....	1
Number of undertakers examined at this meeting.....	30
Number of certificates granted.....	26
Number of applicants who failed to pass.....	4
Number of undertakers reexamined.....	3
Number of renewals since last report.....	250
Amount received for renewals.....	\$250 00
Amount received for examinations.....	\$135 00
Number of licenses revoked for non-payment of fee.....	12
Amount of bills paid, as shown by vouchers attached to treasurer's report, \$185 90	

"The question of the renewal fee being changed from one dollar to two dollars has been brought to the attention of the committee several times, and it is our earnest belief and request that this be granted us, for, after talking with a number of our funeral directors of the state, we find there is no objection to paying the two dollar renewal, and the one dollar seems an insignificant sum to most of our men, and at the present rate of renewal fee, the committee is somewhat handicapped in the way of meeting the expenses we are put to in various ways.

"General harmony has prevailed among our men since last report, so far as we have been able to learn. We have been pained to know from a recent experience (as your secretary will explain) that our certificates are not recognized in all of our sister states, and we earnestly ask aid from your honorable body along this line. Respectfully submitted. J. B. HINTHORN, *Secretary.*"

During the quarter some correspondence has been conducted by Mr. Hinthorn and myself with the secretary of the State Board of Health of Illinois, regarding the recognition of certificates of our board by that state. It grew out of the fact that a Mr. Knowles, from Wellington, Kan., desired to locate in Illinois, and wished to ascertain if his certificate entitled him to conduct the business of undertaking and embalming in that state. We received information from J. A. Egan, secretary of the Illinois Board of Health, that if our standard of examination was the same as their own they would be glad to recognize certificates from this state; but on learning that the embalmers from this state were not required to pass a practical examination on the cadaver, the request of Mr. Knowles was rejected. It might be the question whether it is not best to require undertakers in the future to pass a little more rigid examination, a part of which should be a practical examination on the cadaver. This is a question for our Board of Health to consider.

Following is the report of the treasurer of the committee:

"TOPEKA, KAN., December 16, 1902.

"Chas. Lowry, M. D., *Secretary State Board of Health, Topeka, Kan.:*

"DEAR DOCTOR—In accordance with the rules of the State Board of Health, I herewith submit my report as treasurer of the examining committee:

Received from J. M. Doyle, former treasurer.....	\$331 84
Received from J. B. Hinthorn, per examinations..	135 00
Received from J. B. Hinthorn, per renewals	93 00
Total.....	<u>\$559 84</u>

Paid out on warrants:

To J. B. Hinthorn	\$72 20
J. T. Barkley.....	22 00
W. H. Eicholtz.....	22 20
I. W. Gill.....	29 50
E. O. DeMoss.....	22 00
H. W. Gates.....	9 00
J. M. Doyle.....	4 00
J. V. Abrahams, bond for treasurer.....	5 00
Total.....	<u>\$185 90</u>
Balance.....	373 94
Total.....	<u>\$559 84</u>

Respectfully submitted. E. O. DeMoss, *Treasurer.*"

CHAS. LOWRY, M. D.,

Secretary State Board of Health.

EMBALMERS' EXAMINING COMMITTEE.

The present members of the embalmers' examining committee are as follows: I. W. Gill, Wichita, president; W. E. Eicholtz, Abilene, vice-president; J. B. Hinthorn, Hiawatha, secretary; E. O. DeMoss, Topeka, treasurer; J. T. Barkley, Topeka.

RULES OF THE KANSAS STATE BOARD OF HEALTH.

To govern the embalmers' examining committee in examining the undertakers of the state:

1. The examination of undertakers in this state shall be in charge of an examining committee of five undertakers, which shall be known as the embalmers' examining committee. This committee will be elected by the State Board of Health and will at all times be directly under its supervision.

2. The members of the examining committee shall hold their office for the term of two years, or until their successors are elected and qualified. The election of these members shall be held at the annual business meeting of the State Board of Health. At this time three members of the committee shall be appointed whose term of office will expire in June, 1901, and two whose term of office will expire in June, 1902; and annually thereafter the State Board of Health shall elect the number allotted for that year.

3. In case of a vacancy occurring in the embalmers' examining committee, the president of the State Board of Health shall appoint until the next annual meeting.

4. This committee shall organize by electing a president, vice-president, secretary, and treasurer, who shall serve for one year.

5. This committee shall meet in at least four different parts of the state, as nearly central as possible, to hold its examinations.

6. The member or members of the State Board of Health who reside nearest the place of meeting will be invited, as *ex officio* members, to attend these examinations.

7. It shall be the duty of every funeral director, undertaker or embalmer who may wish to qualify as competent to prepare the remains of one who has died of an infectious or contagious disease for transportation to comply with the following requirements: (a) He shall make application to the embalmers' examining committee for a certificate. Such application shall contain his full name, age, place of residence, and the certificate of two legal physicians of good repute as to his general standing. (b) The application shall be accompanied by a fee of five dollars, which shall entitle the applicant to examination as to his fitness for such special work and the issuing to him of a certificate stating that he has satisfactorily passed an examination. (c) He must be able to pass such an examination as shall be prescribed by the embalmers' examining committee in the visceral anatomy of the human body, the action and comparative value of germicides, the methods of embalming, the further precautions after embalming to insure safety in the transportation of bodies of those who have died of an infectious or contagious disease, the meaning of infection and disinfection, and such other topics as said committee may from time to time see fit to name.

8. This committee shall select the questions for examinations, but the same shall be submitted to the president and secretary of the State Board of Health for their approval.

9. At least twenty questions shall be submitted at each examination, but puzzling or irrelevant questions shall not be asked, and a practical examination on the cadaver shall be required.

10. The applicant for a certificate shall receive a mark of at least seventy-five per cent. in a scale of 100 before a certificate shall be granted.

11. This committee shall examine and mark all papers.

12. The State Board of Health may demand at any time to see or examine the papers of any applicant who has failed to pass a satisfactory examination; and if, in their judgment, said applicant has not been fairly examined, the State Board of Health may examine said party.

13. The committee shall provide its own certificates, fill in the names of those who have successfully passed the examination, and submit the same to the president and secretary of the State Board of Health for their signatures.

14. The certificate may be renewed annually by the payment of one dollar within thirty days after the expiration of the term of the certificate.

15. The failure of a holder of a certificate to comply with the regulations of the State Board of Health shall be deemed sufficient cause for the revocation of his certificate.

16. The traveling and incidental expenses, hotel bills, etc., of the examining committee shall be paid out of funds in the possession of the treasurer of the committee. Each member of the committee shall be allowed three dollars per day for every day actually spent in the work of the committee; provided, that this per diem shall not be allowed for more than four days at any one examination.

17. The secretary of the embalmers' examining committee shall keep a record, in which shall be registered the names and residences of all persons to whom certificates (as prescribed) have been granted, and the number and date of these certificates. A copy of this record shall be furnished to all those holding certificates and also to the various transportation companies within the state.

18. The treasurer of this committee shall be required to give to the State Board of Health a bond for the sum of \$1000. The bond shall be executed by some bonding company approved by the president of the State Board of Health. The expense of obtaining this bond shall be paid by the examining committee from any funds in their possession.

19. The treasurer of this committee shall keep a record of all fees received and expenses paid under these regulations and report the same to the State Board of Health at their quarterly meetings in June and December of each year. This report shall contain, as a part thereof, vouchers showing how and to whom these moneys are expended.

20. No money shall be paid by this committee except upon vouchers drawn upon the treasurer by the president of the committee, countersigned by the secretary. All vouchers shall state the specific purpose for which the money is drawn.

21. No part of the expenses incident to holding these examinations shall at any time be borne by the State Board of Health.

FINANCIAL STATEMENT OF STATE BOARD OF HEALTH.

STATEMENT of the amount of money expended by the State Board of Health for the two years ending December 31, 1902.

ITEM.		Salary of secretary.	Special sanitary work.	Ex- penses of board.
1901.				
Jan.	1.... Balance unexpended at this date.....	\$800 00	\$368 90	\$453 90
	2.... W. B. Swan, stamps for office.....			\$10 00
	7.... Western Union Telegraph Company.....		\$1 05	
	9.... W. B. Swan, special sanitary work.....		25 14	
	10.... E. H. S. Bailey, special sanitary work.....		7 00	
	15.... W. B. Swan, special sanitary work.....		28 22	
	22.... Wells, Fargo & Co.'s Express.....			4 34
	23.... Missouri & Kansas Telephone Company.....			9 00
	31.... Stenographer.....			45 00
	31.... W. B. Swan.....	\$100 00		
	31.... S. J. Crumbine, special sanitary work.....		4 00	
Feb.	1.... W. B. Swan, stamps for office.....			20 00
	11.... E. H. S. Bailey, special sanitary work.....		7 00	
	11.... Western Union Telegraph Company.....		4 67	
	20.... Wells, Fargo & Co.'s Express.....			3 29
	23.... Stenographer.....			45 00
	28.... W. B. Swan.....	100 00		
Mar.	6.... W. B. Swan, special sanitary work.....		11 00	
	7.... E. H. S. Bailey, special sanitary work.....		10 00	
	7.... Western Union Telegraph Company.....		80	
	11.... W. B. Swan, stamps for office.....			20 00
	15.... W. B. Swan, special sanitary work.....		38 75	
	18.... Wells, Fargo & Co.'s Express.....			2 99
	20.... W. B. Swan, special sanitary work.....		4 50	
	21.... C. E. Munn, special sanitary work.....		10 00	
	23.... S. W. Williston.....			3 31
	23.... B. J. Alexander.....			3 60
	23.... E. J. Morton.....			9 09
	23.... S. J. Crumbine.....			25 23
	23.... J. M. Minick.....			14 74
	23.... G. E. Locke.....			5 60
	23.... A. S. Gish.....			7 32
	30.... W. B. Swan.....	100 00		
	30.... Stenographer.....			45 00
Apr.	10.... Western Union Telegraph Company.....		2 26	
	16.... Wells, Fargo & Co.'s Express.....			2 99
	30.... W. B. Swan.....	100 00		
	30.... Stenographer.....			45 00
	30.... Missouri & Kansas Telephone Company.....			9 00
May	4.... Wells, Fargo & Co.'s Express.....			3 09
	7.... F. O. Marvin, special sanitary work.....		24 25	
	10.... Western Union Telegraph Company.....		2 02	
	10.... S. J. Crumbine, special sanitary work.....		6 50	
	13.... W. B. Swan, special sanitary work.....		5 11	
	27.... United States Express Company.....		2 97	
	27.... C. E. Munn, special sanitary work.....		5 00	
	28.... W. B. Swan, special sanitary work.....		5 55	
	31.... Stenographer.....			45 00
	31.... W. B. Swan.....	100 00		
June	13.... Stenographer.....			22 50
	13.... W. B. Swan, special sanitary work.....		21 80	
	14.... B. J. Alexander.....			5 34
	14.... A. S. Gish.....			3 54
	14.... G. W. Hollembeak.....			14 04
	14.... J. M. Minick.....			9 30
	14.... G. E. Locke.....			2 94
	14.... S. J. Crumbine.....			12 91
	25.... S. J. Crumbine, special sanitary work.....		15 22	
	29.... Western Union Telegraph Company.....		6 30	
	30.... W. B. Swan.....	100 00		
	.... Unexpended balance.....		124 79	47
	Totals.....	\$800 00	\$368 90	\$454 68
	.... Credit Pacific Express Company, as per voucher issued July 16, 1900, but not called for.....			78
	Net totals.....	\$800 00	\$368 90	\$453 90

FINANCIAL STATEMENT—CONTINUED.

ITEM.		Salary of secretary.	Salary of clerk.	Special sanitary work.	Ex- penses of board.
1901.					
July	1.... Appropriation for fiscal year.....	\$1,200 00	\$540 00	\$300 00	\$160 00
	1.... W. B. Swan, stamps for office.....				\$30 00
	9.... W. B. Swan, special sanitary work.....			\$2 85	
	13.... <i>The Sanitarian</i>				4 00
	19.... Missouri & Kansas Telephone Company.....				9 00
	25.... Lincoln & Luchesi.....			1 80	
	30.... W. B. Swan.....	\$100 00			
	30.... Stenographer.....		\$45 00		
Aug.	1.... Postage for sixteenth annual report.....				25 00
	1.... Western Union Telegraph Company.....				15
	1.... Wells, Fargo & Co.'s Express.....				9 95
	1.... Pacific Express Company.....				5 38
	30.... E. H. S. Bailey, special sanitary work.....			14 00	
	30.... Improved Mailing Case Company.....			4 50	
	30.... W. B. Swan.....	100 00			
	30.... Stenographer.....		45 00		
Sept.	6.... Pacific Express Company.....				1 99
	9.... Wells, Fargo & Co.'s Express.....				4 35
	26.... G. E. Hollembeak.....				22 90
	26.... J. M. Minick.....				15 04
	26.... S. J. Crumbine.....				24 53
	26.... R. J. Morton.....				6 70
	26.... A. S. Gish.....				7 32
	26.... J. B. Dykes.....				13 16
	26.... G. E. Locke.....				5 40
	26.... S. W. Williston.....			2 95	
	26.... E. H. S. Bailey.....			2 90	
	26.... F. O. Marvin.....			2 90	
	29.... W. B. Swan.....	100 00			
	29.... Stenographer.....		45 00		
	30.... R. J. Blazo, repairs for office.....				2 65
Oct.	8.... W. B. Swan, stamps for office.....				25 00
	8.... Wells, Fargo & Co.'s Express.....				1 28
	8.... Missouri & Kansas Telephone Company.....				9 00
	12.... W. B. Swan, special sanitary work.....			15 25	
	22.... W. B. Swan, special sanitary work.....			13 03	
	26.... W. B. Swan, special sanitary work.....			3 78	
	29.... W. B. Swan.....	100 00			
	29.... Stenographer.....		45 00		
Nov.	4.... F. O. Marvin, special sanitary work.....			20 02	
	4.... Western Union Telegraph Company.....			95	
	7.... Wells, Fargo & Co.'s Express.....				8 98
	7.... Pacific Express Company.....				7 99
	8.... S. J. Crumbine, special sanitary work.....			6 21	
	21.... E. H. S. Bailey, special sanitary work.....			14 00	
	27.... W. B. Swan, special sanitary work.....			4 50	
	29.... W. B. Swan.....	100 00			
	29.... Stenographer.....		45 00		
Dec.	3.... Wells, Fargo & Co.'s Express.....				1 15
	8.... Western Union Telegraph Company.....				1 05
	4.... Pacific Express Company.....				1 41
	4.... W. B. Swan, stamps for office.....				20 00
	11.... Missouri & Kansas Telephone Company.....			1 65	
	11.... E. H. S. Bailey.....			3 00	
	11.... A. S. Gish.....				7 32
	11.... R. J. Morton.....				6 80
	11.... J. M. Minick.....				15 19
	11.... J. B. Dykes.....				14 14
	11.... S. J. Crumbine.....				24 03
	11.... G. W. Hollembeak.....				22 90
	23.... W. B. Swan.....	100 00			
	23.... Stenographer.....		45 00		
Totals expended for six months.....		\$800 00	\$270 00	\$113 79	\$353 70
1902.					
Jan.	1.... Balance unexpended.....	\$800 00	\$270 00	\$686 21	\$106 30
	4.... W. B. Swan.....			\$16 52	
	6.... Pacific Express Company.....				\$3 06
	9.... Wells, Fargo & Co.'s Express.....				2 05
	16.... Western Union Telegraph Company.....				9 00
	31.... W. B. Swan.....	\$100 00			
	31.... Stenographer.....		\$45 00		
Feb.	5.... Wells, Fargo & Co.'s Express.....				3 86
	5.... Pacific Express Company.....				1 26
	5.... Western Union Telegraph Company.....			1 20	

FINANCIAL STATEMENT—CONTINUED.

ITEM.		Salary of secretary.	Salary of clerk.	Special sanitary work.	Ex- penses of board.
1902.					
Feb.	11..... W. B. Swan, stamps for office.....				\$20 00
	13..... Missouri & Kansas Telephone Company.....			\$0 80	
	20..... W. B. Swan, special sanitary work.....			10 61	
	28..... W. B. Swan.....	\$100 00			
	28..... Stenographer.....		\$45 00		
Mar.	5..... Western Union Telegraph Company.....			4 28	
	6..... Wells, Fargo & Co.'s Express.....				1 85
	15..... Pacific Express Company.....				2 12
	30..... W. B. Swan.....	100 00			
	30..... Stenographer.....		45 00		
Apr.	2..... W. B. Swan, stamps for office.....				10 00
	4..... Western Union Telegraph Company.....			1 63	
	4..... Wells, Fargo & Co.'s Express.....				3 85
	9..... Pacific Express Company.....				70
	11..... W. B. Swan, special sanitary work.....			8 75	
	11..... Missouri & Kansas Telephone Company.....			2 40	
	16..... Missouri & Kansas Telephone Company.....				9 00
	29..... W. B. Swan.....	100 00			
	29..... Stenographer.....		45 00		
May	5..... Western Union Telegraph Company.....			71	
	6..... Pacific Express Company.....				1 04
	11..... Wells, Fargo & Co.'s Express.....				3 67
	30..... W. B. Swan.....	100 00			
	30..... Stenographer.....		45 00		
June	3..... Costs and expenses of Tracey case.....			60 70	
	12..... Western Union Telegraph Company.....			1 01	
	13..... E. H. S. Bailey, special sanitary work.....			15 00	
	21..... E. H. S. Bailey, special sanitary work.....			20 00	
	21..... G. W. Hollembeak, special san. work.....			4 40	
	21..... F. O. Marvin, special sanitary work.....			5 85	
	25..... A. S. Gish.....				4 38
	25..... J. M. Minick.....				9 65
	25..... G. W. Hollembeak.....				14 20
	25..... R. J. Morton.....				7 02
	30..... W. B. Swan.....	100 00			
	30..... Stenographer.....		45 00		
	30..... Unexpended balance.....			532 55	
Totals.....		\$800 00	\$270 00	\$686 21	\$106 30
July	1..... Appropriation for fiscal year.....	\$1,200 00	\$540 00	\$800 00	\$460 00
	2..... W. B. Swan, stamps for office.....				\$30 00
	5..... W. B. Swan, <i>Sanitarian</i>			4 00	
	23..... D. J. McFarland, sanitary work.....			7 50	
	26..... R. L. Polk & Co.....				8 00
	31..... Missouri & Kansas Telephone Company.....				9 00
	31..... W. B. Swan.....	\$100 00			
	31..... Stenographer.....		\$45 00		
Aug.	9..... Wells Fargo & Co.'s Express.....				2 81
	11..... Pacific Express Company.....				1 29
	30..... W. B. Swan.....	100 00			
	30..... Stenographer.....		45 00		
Sept.	4..... G. W. Hollembeak.....				25 40
	4..... J. M. Minick.....				15 40
	4..... A. S. Gish.....				7 22
	4..... S. J. Crumbine.....				22 53
	4..... B. J. Alexander.....				8 60
	6..... Charles Lowry, stamps for office.....				20 00
	8..... Sara E. Greenfield.....			15 35	
	10..... Wells, Fargo & Co.'s Express.....				77
	15..... E. H. S. Bailey.....			1 75	
	15..... Western Union Telegraph Company.....			98	
	30..... Charles Lowry.....	100 00			
	30..... Stenographer.....		45 00		
Oct.	6..... Western Union Telegraph Company.....			1 33	
	23..... Missouri & Kansas Telephone Company.....				9 00
	31..... Sara E. Greenfield.....			5 00	
	31..... Charles Lowry.....	100 00			
	31..... Stenographer.....		45 00		
Nov.	7..... Charles Lowry, special sanitary work.....			1 30	
	17..... Typewriter repairs.....				6 10
	30..... Charles Lowry.....	100 00			
	30..... Stenographer.....		45 00		
Dec.	3..... Wells, Fargo & Co.'s Express.....				1 22
	3..... Pacific Express Company.....				65
	10..... Sara E. Greenfield, special san. work.....			10 00	

FINANCIAL STATEMENT—CONCLUDED.

ITEM.	Salary of secretary.	Salary of clerk.	Special sanitary work.	Ex- penses of board.
1902.				
Dec. 19.... A. S. Gish				\$8 57
19.... S. J. Crumbine.....				13 97
19.... G. E. Locke.....				17 29
19.... Charles Lowry.....				16 35
19.... M. N. Gardner.....				13 80
19.... J. B. Dykes.....				15 44
19.... Sara E. Greenfield.....			\$17 50	
19.... F. O. Marvin.....			16 80	
19.... E. H. S. Bailey.....			16 55	
24.... Charles Lowry.....	\$100 00			
24.... Stenographer.....		\$45 00		
Totals expended for six months.....	\$600 00	\$270 00	\$98 06	\$251 31

KANSAS MEDICAL LAWS.

CHAPTER 254 OF THE SESSION LAWS OF 1901.

REGULATING THE PRACTICE OF MEDICINE.

AN ACT to create a State Board of Medical Registration and Examination, and to regulate the practice of medicine, surgery and osteopathy in the state of Kansas, prescribing penalties for the violation thereof, and repealing chapter 68 of the Session Laws of 1870.

Be it enacted by the Legislature of the State of Kansas :

SECTION 1. Within sixty days after the passage of this act, the governor, by and with the consent of the senate, shall appoint a State Board of Medical Registration and Examination, consisting of seven members, one to serve one year, two for two years, two for three years, and two for four years, and the successors of each shall be appointed in the same manner for the term of four years, who shall be physicians in good standing in their profession, and who shall have received the degree of doctor of medicine from some reputable medical college or university not less than six years prior to their appointment; representation to be given to the different schools of practice as nearly as possible in proportion to their numerical strength in this state, but no one school to have a majority of the whole board. Each member of the board shall take and subscribe the oath prescribed by law for state officers, which oath shall be filed with the secretary of state. The board shall organize by the selection of a president and secretary from among their own number, each to serve for such term as the board may designate, not exceeding four years. It shall have a common seal and shall formulate rules to govern its actions. Its president and secretary shall have power to administer oaths pertaining to all matters related to the business of the board. The secretary shall furnish to said board a satisfactory bond, conditioned for the faithful performance of his official duties. Said board shall hold regular meetings on the second Tuesday in February, June and October of each year, and one other meeting, at such time and place as the board may designate, in such of the chief cities of the state as the board may designate. Five members shall constitute a quorum for the transaction of all business; but no license to practice medicine and surgery shall be issued by the board upon less than five affirmative votes when the full board is present, or upon less than a majority affirmative votes when less than full board is present. The board shall keep a record of all of its proceedings, and also a register of all applicants for license to practice medicine in all of its branches within the state, together with a record showing the age of the applicant, time spent in the study of medicine, and the name and location of the institution or institutions from which the applicant may have received degrees or certificates of medical instructions; also, whether the candidate was licensed or rejected. Said books and register shall be *prima facie* evidence of all matters recorded therein.

SEC. 2. All persons engaged in the practice of medicine on the date of the passage of this act shall, within four months from the date of such passage, apply to the Board of Registration and Examination for a license to practice. To all such as present the following qualifications, the board shall issue a license, upon payment of fee hereinafter specified: If a graduate in medicine or surgery, he

shall, either personally or by letter or proxy, present his diploma to the State Board of Medical Registration and Examination for verification. Accompanying such diploma the applicant shall file his affidavit, duly attested, stating that the applicant is the person named in the diploma, and is the lawful possessor of the same, and giving his age and time spent in the study of medicine. If the board shall find the diploma to be genuine, and from a legally chartered medical institution in good standing, as determined by the board, and the person named therein be the person holding and presenting the same, the board shall issue its certificate to that effect, signed by its president and secretary, which, when left for record with the county clerk of the county in which said applicant practices, as hereinafter required, shall be conclusive evidence that its owner is entitled to practice medicine and surgery in this state. If a practitioner of medicine in Kansas at the time of the passage of this act, but not a graduate of medicine or surgery as above defined, he shall, either personally or by letter or proxy, furnish the board affidavits, duly attested, stating the period during which and the places at which he has been engaged in the practice of medicine or surgery. If the board is satisfied from the affidavit and other information received that the applicant was a resident engaged continuously in the practice of medicine in the state of Kansas for seven years prior to the passage of this act, it shall issue its certificate to that effect, which, when left for record with the county clerk of the county in which he resides, shall be conclusive evidence that its owner is entitled to practice medicine and surgery in this state. If engaged in the practice of medicine in this state at the time of the passage of this act for a less period than seven years prior to the passage of this act, and not a graduate in medicine or surgery as above defined, the applicant shall present himself before the board and submit to such examination as to his qualifications for the practice of medicine and surgery as the board may require. If the applicant passes the examination satisfactory to the board, the board shall issue its certificate to that effect, which, when left for record with the county clerk of the county in which he resides, shall entitle its owner to practice medicine or surgery in this state. The board may refuse to grant a certificate to any person guilty of felony or gross immorality or addicted to the liquor or drug habit to such a degree as to render him unfit to practice medicine or surgery and may, after notice and hearing, revoke the certificate for like cause.

SEC. 3. All persons intending to practice medicine, surgery or osteopathy after the passage of this act, and all persons who shall not have complied with section 2 of this act, shall apply to said board at any regular meeting, or at any other time or place as may be designated by the board for a license. Application shall be made in writing, and shall be accompanied by the fee hereinafter specified, together with the age and residence of the applicant, proof that he or she is of good moral character, and satisfactory evidence that he or she has devoted not less than three periods of six months each, no two within the same twelve months, or, if after April 1, 1902, four periods of not less than six months each, no two in the same twelve months, to the study of medicine and surgery. All such candidates, except as hereinafter provided, shall submit to an examination of a character to test their qualifications as practitioners of medicine or surgery, and which shall embrace all those topics and subjects a knowledge of which is generally required by reputable medical colleges of the United States for the degree of doctor of medicine; provided, that the examination in materia medica and therapeutics and in the theory and practice of medicine shall be conducted by those members only of the board who are of the same school of practice as the applicant claims to follow; provided further, that graduates of legally char-

tered medical institutions of the United States or foreign countries in good standing, as determined by the board, may be, at the discretion of the board, granted a license without examination; provided further, that any graduate of a legally chartered school of osteopathy, wherein the requirements for the giving of a diploma shall include a course of instruction of not less than four terms of five months each, in two or more separate years, shall be given a certificate of license to practice osteopathy upon the presentation of such diploma; provided further, that the board may in its discretion accept, in lieu of examination or diploma, the certificate of the board of registration and examination of any other state or territory of the United States or any foreign country whose standards of qualification for practice are equivalent to those of this state; provided, that a temporary certificate may be issued to any student of medicine or practitioner of medicine who is not qualified under the law, upon the written request of a majority of the practitioners of medicine under this act in the county in which he or she desires to practice, or, if there be no practitioners registered under this act in any county in this state, the board shall issue a temporary permit to persons as above described upon the application of the board of county commissioners of said county.

SEC. 4. Upon the completion of the examination or the acceptance of the diploma or certificate as herein provided, the said board shall, if it finds the applicant qualified, grant and issue a certificate to said applicant to practice medicine and surgery or osteopathy within this state, and which shall be signed by the president and secretary and attested by the seal of the board. Within thirty days of the date of any certificate of license having been granted and issued by the board, the owner thereof shall have it recorded as hereinafter provided in the office of the clerk of the county in which he resides, or, if a non-resident of this state, then of the county in which he has an office or intends to practice, and the date of recording shall be indorsed thereon; and until such certificate or license is recorded he shall not exercise any of the rights or privileges therein conferred. The county clerk shall keep in a book for the purpose a complete list of the certificates recorded by him, which book shall be open to public inspection during business hours. Between the 1st and 20th days of December in each year, the county clerk shall furnish the secretary of the board a list of all certificates recorded and in force, and also a list of all certificates which have been revoked or the owners of which have removed from the county or died during the year. The fee for the recording and reporting of such certificates shall not exceed one dollar.

SEC. 5. The fee for the issuance of a certificate to all those found qualified to practice medicine, surgery or osteopathy without examination, as provided under section 2, shall be two dollars. The fee for examination shall be fixed by the board, but shall not exceed fifteen dollars. The fee for examination of diploma or certificate from an examining board of another state shall also be fixed by the board, but shall not exceed ten dollars. All moneys received by the board shall be paid by the secretary thereof into the state treasury monthly. The compensation and actual traveling and other expenses of the board shall be paid from the treasury of the state; provided, that the total amount paid from the state treasury under the provisions of this act shall not exceed the amount paid into the treasury as herein provided. The compensation of the members of the board shall be six dollars for every day actually spent in the discharge of their duties. In addition to his actual traveling expenses, the secretary shall receive a salary, to be fixed by the board, but it shall not exceed \$800 per annum. All of such compensation and traveling expenses shall be approved by the president and secretary of the board. It shall be the duty of said board to make a report of

their proceedings to the governor annually, on or before the 15th day of November, which report shall include an account of all moneys received and disbursed by them.

SEC. 6. Any person shall be regarded as practicing medicine and surgery within the meaning of this act who shall prescribe, or who shall recommend for a fee, for like use, any drug or medicine, or perform any surgical operation of whatever nature for the cure or relief of any wounds, fracture, or bodily injury, infirmity or disease of another person, or who shall use the words or letters "Dr.," "doctor," "M. D.," or any other title in connection with his name which in any way represents him as engaged in the practice of medicine and surgery; but nothing in this act shall be construed as interfering with any religious beliefs in the treatment of disease, provided that quarantine regulations relating to contagious diseases are not infringed upon. All persons who practice osteopathy shall be registered and licensed as doctors of osteopathy, as hereinbefore provided, but they shall not administer drugs or medicines of any kind nor perform operations in surgery. This act shall not apply to any commissioned medical officer of the United States army, navy, or marine service, in the discharge of his official duties; nor to any legally qualified dentist, when engaged in the legitimate practice of his profession; nor to any physician or surgeon who is called from another state or territory in consultation with a licensed physician of this state, or to treat a particular case in conjunction with a licensed practitioner of the state, and who does not otherwise practice in the state. Nor shall anything in this act apply to the administration of domestic medicines nor to prohibit gratuitous services; provided, any person holding a diploma issued by an optical college, and who has studied the anatomy of the eye and contiguous parts, human physiology and natural philosophy for at least six months under a competent teacher and who shall pass examination satisfactory to the State Board of Medical Registration and Examination, shall be eligible to register as an optician or doctor of optics, and shall be otherwise governed by this act so far as the same is applicable.

SEC. 7. From and after the 1st day of September, 1901, any person who shall practice medicine and surgery or osteopathy in the state of Kansas without having received and had recorded a certificate under the provisions of this act, or any person violating any of the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall pay a fine of not less than \$50 nor more than \$200 for each offense, and in no case wherein this act shall have been violated shall any person so violating receive compensation for services rendered. It shall be the duty of the secretary of the State Board of Registration and Examination to see that this act is enforced.

SEC. 8. Any person who shall swear falsely in any affidavit or oral testimony made or given by virtue of the provisions of this act or the regulations of said Board of Registration shall be deemed guilty of perjury.

SEC. 9. Chapter 68 of the Session Laws of 1870 is hereby repealed.

SEC. 10. This act shall take effect and be in force from and after its publication in the official state paper.

Approved March 1, 1901.

Published in official state paper March 22, 1901.

CHAPTER 75.

OF THE STATE AND COUNTY BOARDS OF HEALTH AND THE PROMOTION
OF MEDICAL SCIENCE.

ARTICLE I.—OF BOARDS OF HEALTH.

GENERAL STATUTES OF 1897, VOL. 1.

SECTION 1. Within thirty days after this act shall take effect, the governor, by and with the advice and consent of the senate, if it be then in session, shall appoint, from the different parts of the state, nine physicians, who shall be men of good moral character and temperate habits, distinguished for their devotion to the study of medicine and allied sciences, of not less than seven years' continuous practice in their profession, and each of whom shall be a graduate of a respectable medical college; and said nine physicians, when so appointed and confirmed, shall be known as "The Kansas State Board of Health." Three of said physicians shall be appointed for one year, three for two years, and three for three years; and annually thereafter the governor shall in like manner appoint three physicians of like character and qualifications to fill the vacancies occurring in, said board by reason of the expirations of the terms of service, as herein provided; and the persons so appointed shall hold their respective offices for the like term of three years, and until their successors are appointed and qualified; but in no case shall the governor appoint a majority of the physicians that shall constitute said Board of Health from any one school of medical practice, nor shall said board at any time be composed of persons a majority of whom shall be of the same school of medical practice.

SEC. 2. Upon the appointment of the nine physicians first provided for in this act, the secretary of state shall issue to each of them a certificate of his appointment, and within twenty days after such appointment the said nine persons shall meet in the city of Topeka, and they shall each take and subscribe the oath prescribed by law for state officers, which oath shall be filed with the secretary of state. And thereupon said board shall immediately organize by electing one of its number president. They shall also elect a secretary, and said secretary shall be the executive officer of said board, but not a member thereof. The secretary shall execute to the state of Kansas a bond in the sum of \$5000, with sureties to be approved by the governor; and when approved, it shall be filed in the office of the secretary of state. Said bond shall be conditioned for the faithful performance of the duties of his office as such secretary. And he shall take and file a like oath to that prescribed for the members of said board. The board may elect one of its own number secretary, but in such case such election shall create a vacancy in the board, which shall be filled by the governor.

SEC. 3. It shall be the duty of the governor to fill all vacancies which may occur in the board; and all appointments, whether original or to fill vacancies, made during the recess of the legislature, shall be submitted by the governor to the senate at its first session after such appointment is made, for its action. But all lawful official actions of the members of the board made before confirmation or rejection shall be valid.

SEC. 4. The Executive Council shall provide the State Board of Health a suitable office at the city of Topeka for the transaction of its business.

SEC. 5. The State Board of Health shall make, adopt and publish such rules and order of business as may be necessary to make this act effective, and to

facilitate the transaction of its business. It shall provide a seal, and all correspondence and papers emanating from it shall be under the seal of said board. It shall meet quarterly, and oftener if deemed necessary, at such place as it may designate; the first meeting to be held in the city of Topeka. The annual meeting after the first shall be held during the month of June in each and every year, at Topeka, and a majority of its members shall constitute a quorum for the transaction of business.

SEC. 6. No member of the board shall receive any compensation for services rendered; but their traveling and other necessary expenses, while employed on business of the board, shall be allowed and paid. The secretary shall receive such compensation as may be allowed by the State Board of Health, and approved by the governor, and to be paid him in the same manner as the salaries of other state officers are paid; and such necessary expenses shall be allowed him as the secretary of state shall admit, on the presentation of an itemized account, having vouchers annexed, together with the certificate of the board.

[Payments required by this section cannot be made except by appropriations duly made by the legislature.— State constitution, section 24, article 2.]

SEC. 7. The secretary shall hold his office so long as he shall faithfully discharge the duties thereof; but may be removed for just cause at any regular meeting of the board, by a majority of all members of the board. He shall keep a record of all the transactions of the board; shall have the custody of all books, papers, documents and other property belonging to the office; shall communicate with other state boards of health, and with the local boards of health within this state; shall file and keep all reports received from such boards, and all correspondence of the office appertaining to the business of the board. He shall perform all other duties prescribed in this act for the said secretary, or directed by the State Board of Health.

SEC. 8. The State Board of Health shall supervise the health interests of the people of this state. They shall make careful inquiry in respect to the cause of disease, and especially of epidemics, and investigate the sources of mortality, and the effects of localities, employments, conditions, ingesta, habits and surroundings on the health of the people. They shall advise officers of government, or other state boards, in regard to location, drainage, water-supply, disposal of excreta, heating and ventilation of public buildings. They shall collect and preserve such information relating to forms of disease and death as may be useful in the discharge of the duties of said board. All health officers of local boards of health in the state shall transmit to said State Board of Health copies of the reports and publications, and such sanitary information as may be useful to the people of the state. (See section 11.)

SEC. 9. The State Board of Health shall supervise the registration of marriages, births, and deaths, and also the registration of forms of disease prevalent in the state; and the secretary of said board shall superintend the registration of the vital statistics of the state. They shall prepare the blank forms necessary for obtaining and preserving such records, and forward such of them to the health officers of local boards as may be required by physicians, assessors, local boards, and others whose duty it is to gather information in relation to the vital statistics of the state. The State Board of Health shall also prepare the forms and establish the rules by which permits for transporting the dead bodies of persons for burial beyond the county where the death occurs; and in all cases the said Board of Health shall require the coupons to be attached to such permits to be detached and preserved by every common carrier, or the person in charge of any vessel, railroad-train or vehicle to which dead bodies shall be delivered for transporta-

tion. Any violation of these rules shall subject the offender to a fine of ten dollars for each offense. (See rules 23, 27.)

SEC. 10. The State Board of Health shall, when they think best to do so, appoint committees, or engage suitable persons to render special sanitary service, to make or supervise practical or scientific investigations and examinations requiring expert skill, and to prepare plans and report thereon. And it is hereby made the duty of all officers and agents having the control, charge or custody of any public structure, work, ground, or erection, or any plan, description, outline drawings, charts thereof or relating thereto, made, kept or controlled under any public authority, to permit and facilitate any examination and inspection ordered by said board; and the members of said board, and such other officer or person as may at any time be by said board authorized, may without fee or hindrance enter, examine and survey all grounds, erections, vehicles, structures, apartments, buildings, and places; but the legislature shall first determine the amount which shall be expended during the year for such special sanitary work, and the expenditures shall not exceed the amount thus determined and set apart for the year.

LOCAL OR COUNTY BOARDS.

SEC. 11. The county commissioners of the several counties of this state shall act as local boards of health for their respective counties. Each local board thus created shall elect a physician, preference being given to adepts in sanitary science, who shall be *ex officio* a member of said local board and the health officer of the same. He shall hold his office during the pleasure of the board, but may be removed for just cause at any regular meeting of the same by a majority of the members voting therefor, on which motion he shall not vote. The local boards of health hereby created shall not supersede or in any way interfere with such boards established by municipal regulations in any of the counties of this state; but all local boards of health of this state, created by this act, or existing by authority of municipal law, shall be governed by the provisions of this act. (See section 8.)

SEC. 12. The health officer of the several local boards of health throughout the state, immediately after his election, shall notify the state board of the fact, and give his post-office address. He shall receive and distribute without delay, in the county for which he is appointed, all forms from the State Board of Health to the rightful persons, and all returns from physicians, assessors and local boards to the said State Board of Health, and he shall perform such other duties as this act, his local board or the State Board of Health may require of him. He shall receive for his services such reasonable compensation as his board may allow, to be paid out of the county treasury. And for any failure or neglect of said health officer to perform any of the duties prescribed in this act, he shall upon conviction thereof be fined ten dollars for each and every offense. (See rules 30, 31; also, decision of attorney-general.)

RECORD OF BIRTHS AND DEATHS.

SEC. 13. It shall be the duty of every physician practicing his profession in the state of Kansas to keep a record of the deaths occurring in his practice, or that may come to his knowledge, where death occurs without medical attendance, noting the form of the disease, and as far as possible the cause which produced it, and to report the same to the local board of health where the same occurs, at the time and in the manner prescribed by the State Board of Health; and any failure to do so will subject said physician to a fine of ten dollars for each and every offense. (See rule 23.)

[The word "offense" is defined in Kansas Supreme Court Reports, vol. 22,

p. 14, as "any misdemeanor or felony for which any punishment by imprisonment or fine, or both, may by law be inflicted."]

SEC. 14. It shall be the duty of assessors of personal property in the several townships and wards of cities throughout the state, annually, to collect such information as to marriages, births and deaths as may be required by the State Board of Health, and report the same at the time and in the manner prescribed by the said board to the local board of health.

SEC. 15. It shall be the duty of the State Board of Health, on or before the first Monday in January of each year, to make a report in writing to the governor of the state upon the vital statistics and the sanitary conditions and prospects of the state; and said report shall set forth the action of said board and its officers and agents, and the names thereof, and also the names of physicians registered for the past year, and shall suggest any further legislative action deemed proper for the better protection of life and health, and may contain any useful information which said board may desire to communicate. The annual report of said board shall contain a detailed account of the money paid out by or on account of said board, and a detailed statement of the manner of its expenditure, during the past year, but the amount so paid out shall not aggregate a sum exceeding \$5000 in any year. The report of the State Board of Health shall be published in form and manner as other state reports.

SEC. 16. All prosecutions under this act shall be conducted by the county attorney for the county in which the offense was committed, in the court having jurisdiction, and all fines imposed and collected shall be paid into the county treasury, to the credit of the school fund.

RELATING TO PUBLIC HEALTH.

Session Laws 1901, ch. 285.

SECTION 1. Whenever any physician shall know or have reason to believe that any person whom he is called to visit, or any person sick within his knowledge without the care of a physician, is sick with or has died of cholera, smallpox, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis, or any disease dangerous to the public health, he shall immediately give notice thereof to the nearest board of health or health officer, and, if the case occurs in his own practice, shall at once cause a red or yellow cloth or card not less than twelve inches square, with the name of the disease written or printed thereon in large characters, to be fastened upon the front door or other conspicuous part of the building wherein the sickness prevails; such cloth or card to be maintained during the existence of the disease, and until such time as the health officer, or, in his absence, the attending physician, acting upon his authority and approval, is satisfied that the premises have been thoroughly disinfected and are fit for reoccupation.

SEC. 2. Whenever any householder shall know that any of his family is sick with or has died of smallpox, cholera, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis, or any disease dangerous to the public health, he shall immediately give notice thereof to the nearest board of health or health officer, and shall cause the house to be placarded as prescribed in section 1.

SEC. 3. Any municipal or county board of health or health officer having knowledge of any infectious or contagious disease, or of a death from such disease, within their jurisdiction, shall immediately exercise and maintain a supervision over such case or cases during their continuance, seeing that all such cases are properly cared for and that the provisions of this act as to isolation, restriction of communication, placarding, quarantine and disinfection are duly enforced. The local board of health or health officer shall communicate without delay all

information as to existing conditions to the State Board of Health. Said health officer will confer personally, if practicable, otherwise by letter, with the physician in attendance upon the case, as to its future management and control and with the authorities of the place, as to their duties in the premises. Should the disease show a tendency to become epidemic, the public and private schools must be closed, and, in extreme cases, church services suspended and public assemblages of people at shows, circuses, theaters, fairs or other gatherings prohibited. In case of smallpox, a general and thorough vaccination should be recommended and insisted upon.

SEC. 4. All persons sick with smallpox, cholera, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis or any contagious or infectious diseases dangerous to the public health shall be thoroughly isolated from the public and properly quarantined.

SEC. 5. Members of any household in which cholera, smallpox, diphtheria, scarlet fever, epidemic cerebro-spinal meningitis, measles or other infectious or contagious diseases exist shall be required to abstain from attending places of public amusement, worship, and from visiting other private houses. No person recovering from such diseases shall be permitted to appear on the public streets or highways or in any public place until after danger from contagion is past and the premises thoroughly disinfected.

SEC. 6. No person inflicted with any infectious or contagious disease dangerous to the public health shall be admitted into any public or private school. No parent, guardian, tutor or other person having charge or control of children whose residence is infected with smallpox, cholera, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis or other infectious or contagious disease dangerous to the public health shall allow or permit them to attend any public or private school during the continuance of such infection, or until the premises have been thoroughly disinfected and all danger from contagion has passed.

SEC. 7. No public funeral shall be allowed, either at the house or church, where death occurs from smallpox, cholera, scarlet fever, diphtheria, epidemic cerebro-spinal meningitis, or other infectious disease dangerous to the public health.

SEC. 8. Diphtheritic croup, croupous diphtheria, membranous croup, croup other than spasmodic, putrid fever, diphtheritic sore throat, and sloughing sore throat, occurring in communities where diphtheria is prevalent, shall be included among the diseases dangerous to the public health, and subject to the same precautions as diphtheria. In like manner, patients suffering from or exposed to scarlatina or scarlet rash or varioloid shall be required to undergo the precautions prescribed for scarlet fever and smallpox, respectively.

SEC. 9. It shall be the duty of every physician in attendance upon any person afflicted with any contagious or infectious disease designated in this act to notify the proper health officer when said premises are ready for disinfection, so that the same may be properly disinfected under the direction of said health officer or some other person under his authority.

SEC. 10. Whenever cholera, smallpox, diphtheria, scarlet fever, epidemic cerebro-spinal meningitis or other infectious or contagious diseases show a tendency to become epidemic, and the local health authorities neglect to properly isolate and quarantine such diseases, the State Board of Health or its executive officer may quarantine any city, township or county in which any of these diseases may show a tendency to become epidemic.

SEC. 11. Any person found guilty of violating any of the provisions of this act or failing to comply with any requirements thereof shall be, upon conviction, fined not less than twenty-five dollars nor more than one hundred dollars for each offense.

PRESERVATION OF PUBLIC HEALTH.

Session Laws 1893, ch. 74. Gen. Stat. 1897, ch. 75.

SEC. 17. Whenever any part of this state appears to be threatened with Asiatic cholera, or other infectious or contagious disease, from any adjoining state or territory, the State Board of Health shall have the power and it shall be its duty to establish and maintain *quarantine* stations at the limits of the state at such points as may be deemed necessary, and to enforce thereat such rules and regulations as may be adopted and published by the said board for the purpose of preventing or obstructing the introduction or spread of such disease, by the inspection of all persons, places, and things, and the exclusion of all infected or suspected persons and goods, and the purification of all infected places and things. They may declare any or all of the rules so made to be in force within the whole or any part or parts of the district of any local or municipal board of health, and to apply to any railroad-train, passenger-coach, or public vehicle, or conveyance of whatsoever kind, for the period named in such order, and may by subsequent order abridge or extend such period. And any person or corporation owning, occupying or controlling any house, building, dwelling, premises or places, of whatsoever kind, or any railroad-train, passenger-coach or other public vehicle or conveyance, who shall violate or refuse to obey any of the rules, regulations or orders of the said board, when duly made and published, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in the sum of not more than \$500 for each offense, or be confined in the county jail for a period of thirty days, or both such fine and imprisonment, in the discretion of the court; provided, that the State Board of Health may cause the said rule, regulation or order thus violated or disobeyed to be fully carried out, and may recover the expense incurred thereby, and the said fine and costs of prosecution, in a civil action before any justice of the peace, or court having jurisdiction in like cases; provided,* that no part of this sum shall be used except for the purposes named herein, and then only in cases of urgent necessity; and that the warrant or warrants for the payment of expenses incurred, as herein provided, shall be drawn only upon the certificate of the president and secretary of the State Board of Health, recommended by the judge of the district whose territory is threatened or affected, and approved by the governor of the state.

PROMOTION OF MEDICAL SCIENCE.

Session Laws 1897, ch. 153.

SEC. 18. It shall be lawful for the faculty of any regularly organized medical college in this state authorized by law to confer the degree of doctor of medicine to claim and receive the dead body of any criminal or unknown person, which would otherwise be buried in the potter's field; such body to be used within the state for the purpose of the advancement of medical, surgical and anatomical science and study and the instruction of doctors and students.

SEC. 19. The president and secretary of any regularly organized medical college in the state are hereby authorized and empowered to make formal requisition upon the person or persons in charge of any persons who may come under the provisions of this act for the body of any person who after death would otherwise

* This proviso was evidently intended to apply to the appropriation made to the State Board of Health by chapter 33 (pages 50 and 51) of the Laws of 1893, to be used "in case of an invasion of cholera." Said appropriation was rescinded by chapter 110, Laws of 1895.

be buried in the potter's field, for the purpose expressed in section 18 of this act. It shall be the duty of such person or persons upon receiving such requisition to acknowledge the receipt thereof, and to enter it in the book to be kept for that purpose, and upon the death of any person coming under the provisions of this act to immediately notify the president or secretary making such requisition; provided, that if two or more colleges make requisitions, the bodies shall be distributed between them in proportion to their number of students. Upon receiving notice of the death of any person coming under the provisions of this act, the president or secretary shall immediately authorize some person to receive the body and to transport it to the medical college which they represent. A receipt for the body shall be given to the officer delivering the same, which receipt shall be entered in the book aforesaid, and the president or secretary of such medical college shall keep or cause to be kept a record by register number of all such bodies received. If the body is not needed, the president or secretary shall so inform the proper officer, and the body shall receive decent burial.

SEC. 20. Before making requisition upon any person as provided by section 19 of this act (the next preceding section), the president and secretary of such medical college shall execute a good and sufficient bond to the state of Kansas in the sum of \$1000, to be approved by the secretary of state and filed in his office, that such bodies shall be used only for the promotion of medical and surgical science within the state of Kansas. The remains, after serving such purpose, shall receive decent burial.

SEC. 21. If the deceased person during his last sickness of his own accord requests to be buried, or if any person claiming to be and satisfying the proper authorities that he is a personal friend or kindred of the deceased shall at any time ask to have the body buried, the body shall not be surrendered, but buried in the usual manner; provided, that no body shall be delivered as provided in section 2 of this act (section 19 of this chapter) if claimed by friends within twenty-four hours after death, nor unless the person or persons in charge of deceased at time of death shall have made diligent search by telegraph and otherwise for relatives or friends, and no response to such inquiry has been received within twenty-four hours after such notice; and provided also, that in case the remains of any person so delivered and received shall be subsequently claimed by any relative or friend, they shall be given up to such relative or friend for interment.

SEC. 22. Every person who shall deliver up a body of any deceased person in violation of or contrary to the provisions of this act, and any person who shall receive such body knowing the same to have been delivered contrary to any of the provisions of this act, or any person who shall refuse or neglect to comply with any of the conditions of this act, shall each and any of them be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than \$100 nor more than \$200, or imprisoned in the county jail not exceeding one year.

NUISANCES.

Gen. Stat. 1897, vol. 2, ch. 100.

SEC. 338. *Dead animal into well, etc.* If any person or persons shall put any dead animal, carcass, or part thereof, into any well, or into any spring, brook or branch of running water, of which use is made for domestic purposes, every person so offending shall, on conviction thereof, be fined in any sum not less than \$2 or more than \$100.

SEC. 339. *Carcass into river, creek, etc.* If any person or person shall put any part of the carcass of any dead animal into any river, creek, pond, road street, alley, lane, lot, field, meadow, or common; or if the owner or owners

thereof shall knowingly permit the same to remain in any of the aforesaid places, to the injury of the health or to the annoyance of the citizens of this state, or any of them, every person so offending shall, on conviction thereof before any justice of the peace of the county, be fined in a sum not less than one dollar nor more than twenty-five dollars; and every twenty-four hours during which said owner may permit the same to remain thereafter shall be deemed an additional offense against the provisions of this act.

SEC. 340. *Slaughter-houses.* If any owner or owners, occupier or occupiers of any slaughter-house, or of any premises where hogs, beeves or other animals are slaughtered, shall permit the same to remain unclean, to the annoyance of the citizens of this state, or any of them, every person so offending shall be fined for every such offense any sum not less than five dollars nor more than fifty dollars; and if such nuisance be not removed within five days thereafter, it shall be deemed a second offense against the provisions of this act; and every like neglect of each succeeding five days thereafter shall be considered an additional offense against the provisions of this act. ["An act to prevent nuisances," approved March 2, 1868.]

SEC. 341. *Soap factories, etc., unclean.* If any owner or owners, occupier or occupiers of any soap factory, candle factory, oil factory, glue factory, varnish factory, pork house, sausage house or lard house shall permit the same to remain unclean, to the annoyance of the citizens of this state, or any of them, to a greater extent than is required for the necessary prosecution of their business, every person so offending shall be fined for every such offense any sum not less than \$10 nor more than \$100; and if such nuisance be not removed within five days thereafter, it shall be deemed a second offense against the provisions of this act; and for every like neglect of each succeeding five days thereafter, shall be considered an additional offense against the provisions of this act. [Approved March 2, 1868.]

SELLING POISONS WITHOUT LABELS, OR TO MINORS.
Gen. Stat. 1897, vol. 2, ch. 100.

SEC. 319. Every person who shall sell or deliver to any other any arsenic, corrosive sublimate, prussic acid, or any other substance or liquid usually denominated poisonous, without having the word "poison" plainly written or printed on a label attached to the vial, box, vessel or package containing the same; or who shall sell or deliver any tartar emetic, without having the true name written or printed on a label, and attached to the vial, box, vessel or package containing the same; or who shall sell or deliver any such substance or liquid to any minor without a written permission from the guardian of such minor, specifying the kind of drug that such minor is authorized to purchase, shall on conviction be adjudged guilty of a misdemeanor, and punished by fine not exceeding fifty dollars.

INOCULATING WITH SMALLPOX.

SEC. 321. If any person shall inoculate himself or any other person, or shall suffer himself to be inoculated with the smallpox, within this state, with intent to cause the prevalence or spread of this infectious disease, he shall be punished by imprisonment in the state prison not more than three years nor less than one year.

DRAINAGE.
Session Laws of 1879, ch. 100.

SECTION 1. That the township trustee of any township in this state shall have power, whenever in his opinion the same is demanded by or will be conducive to the public health, convenience, or welfare, to cause to be established, located, and constructed, as hereinafter provided, any ditch, drain or watercourse within such township.

WATERCOURSES — MAY BE CHANGED, ETC.

Gen. Stat. 1897, vol. 1, ch. 37.

SEC. 76. The council may establish, alter and change the channels of water-courses, and wall them and cover them over; and may establish, make and regulate public wells, cisterns, aqueducts, and reservoirs of water, and provide for filling the same.

[By condemning one piece of property no right is acquired to another; and the right to divert the flow of a stream is not a right incident to riparian ownership. It is a separate and independent property, and if the city seeks to condemn that, it must have a special condemnation of it. *City of Emporia v. Soden*, 26 Kan. 492.]

INSPECTION OF JAILS.

Gen. Stat. 1897, vol. 2, ch. 132.

SEC. 2. The judge of the district and the county attorney shall, during each term of the district court, make personal inspection of the county jail, as to the sufficiency thereof for the safe-keeping of prisoners, their convenient accommodation and health; and shall inquire into the manner in which the same has been kept since the last term, and make report in writing to the board of county commissioners of the county; and whenever any grand jury shall be in session, in any county, it shall be the duty of such jury to make inspection and report to the county commissioners touching the same matters; and it shall be the imperative duty of the county commissioners to issue the necessary orders, or cause to be made the necessary purchases or repairs, in accordance with the recommendation of the grand jury.

SEC. 3. The sheriff of the county, by himself or deputy, shall keep the jail, and shall be responsible for the manner in which the same is kept. He shall keep separate rooms for the sexes, except where they are lawfully married. He shall supply proper bread, meat, drink and fuel for the prisoners.

PROTECTION OF PEOPLE WHO ASSEMBLE IN PUBLIC HALLS, ETC.

Session Laws of 1879, ch. 130.

SEC. 235. That all public halls, lyceums, theaters, opera-houses and other places of amusement which are thrown open to and used for the profits of their owners or proprietors by public assemblies in the state of Kansas shall be provided by the owner, manager or lessee with at least two stairways, hallways, or means of egress, and all doors opening thereto shall not be less than three feet in width, and shall swing or open out of, and not into, said public hall, lyceum, theater, opera-house, or other place of amusement.

SEC. 236. The proprietor, lessee or manager of every public hall, theater, lyceum, or opera-house, or other place of amusement in the state of Kansas, shall keep at least one force-pump in good order, ready for instant use, of sufficient capacity and provided with sufficient hose to throw water to any part of said hall, theater, lyceum, opera-house, or other place of amusement, in case of fire; or, in lieu of such force-pump, not less than two chemical hand fire-extinguishers, which shall be kept properly charged and in good working order at all times, and in plain view of the audience.

SEC. 237. The proprietor, lessee or manager of every hotel or public house of entertainment containing twenty or more rooms, in the state of Kansas, shall keep at least one force-pump in good order, ready for instantaneous use at all times, of sufficient capacity and provided with sufficient hose to throw water to any part of said hotel or public house of entertainment in case of fire; or, in lieu of such force-pump, at least one chemical hand fire-extinguisher, properly charged

and in good working order, on each floor or story of said hotel or public house of entertainment.

SEC. 238. Any person, company or corporation who shall fail, neglect or refuse to comply with the provisions of this act, within three months after it becomes a law, shall be deemed guilty of a misdemeanor, and shall be subject to a fine of ten dollars per day for every day any such person, company or corporation shall continue in such failure, neglect, or refusal; and it shall be the duty of the county attorneys in the various counties of this state, upon complaint made to them of the violation of the provisions of this act, by any person, company, or corporation, to at once commence action against such persons, company, or corporation, in the district court of the proper county, to recover said fine.

SALE OF POISONOUS DRUGS.

Session Laws of 1887, ch. 174.

SECTION 4. . . . It shall be unlawful for any person, on and after the passage of this act, to retail any articles enumerated in schedules A, B, C, except as follows:

Schedule A.—Arsenic and its preparations, corrosive sublimate, white precipitate, red precipitate, biniodide of mercury, cyanide of potassium, hydrocyanic acid, chloroform, strychnine, morphine, and all other poisonous vegetable alkaloids and their salts, essential oil of bitter almonds, opium and its preparations, except paregoric and other preparations of opium containing less than two grains to the ounce.

Schedule B.—Aconite, belladonna, colchicum, conium, nux vomica, henbane, cantharides, creosote, digitalis, and their pharmaceutical preparations, croton oil, chloral hydrate, sulphate of zinc, sugar of lead, mineral acids, carbolic acid, oxalic acid, and all other virulent poisons.

Schedule C.—Oil of savin, oil of tansy, ergot and its preparations, cotton root and its preparations, and all other active emmenagogues or abortives.

Articles enumerated in schedules A and B shall not be sold without distinctly labeling the box, vessel or paper in which the said poison is contained, and also the outside wrapper or cover, with the name of the article, the word "poison," and the name and place of business of the seller. Nor shall it be lawful for any person to sell or deliver any poison enumerated in schedules A and B, unless upon due inquiry it be found that the purchaser is aware of its poisonous character, and represents that it is to be used for a legitimate purpose; nor shall it be lawful for any proprietor or owner of any drug-store or pharmacy, or any registered pharmacist, to sell or deliver any articles included in the schedules A and B without, before delivering the same to the purchaser, causing an entry to be made in a book kept for that purpose, stating the date of sale, the article sold, the quantity thereof, the purpose for which it is represented by the purchaser to be required, the name of the dispenser, and the name and address of the purchaser, signed by himself, such book to be always open for inspection by the proper authorities, and to be preserved for at least five years. No articles enumerated in schedule C shall be sold except on the prescription of a legally qualified physician. The provisions of this section shall not apply to the sales of poisons to practicing physicians and photographers, and to the dispensing of poisons in not unusual doses or quantities upon the prescriptions of licensed practitioners of medicine. All prescriptions of practicing physicians shall be retained by the dispenser. Any person procuring from any pharmacist articles enumerated in schedules A, B and C under fraudulent representations shall be deemed guilty of a misdemeanor, and be liable to a fine of not less than \$25 nor more than \$100.

PROHIBITING THE DISCHARGE OF SEWERS WITHIN CERTAIN DISTANCE OF WATER SUPPLY.

Session Laws of 1889, ch. 232.

SECTION 1. The mayor and council of any city of the first class shall have power and authority to construct flushing ditches or conduits, discharging sewers or outlets for sewers, and to connect the same with any creek or river at any point within five miles of the corporate limits of the city, and for this purpose the right of eminent domain is hereby granted to cities of the first class.

SEC. 3. . . . Provided, that no sewer shall be permitted to empty into any stream from which a water-supply is obtained within three miles above the point where said water-supply is obtained.

HOSPITALS, WATER-WORKS, ETC.

Gen. Stat. 1897, vol. 1, ch. 37.

SEC. 78. The council may purchase or condemn and hold for the city, within or outside the city limits, within five miles therefrom, all necessary lands for hospital purposes and water-works, and erect, establish and regulate hospitals, work-houses and poorhouses, and provide for the government and support of the same, and make regulations to secure the general health of the city, and to prevent and remove nuisances, and to provide the city with water.

CONTAGIOUS DISEASES—QUARANTINE.

SEC. 86. The council may make regulations to prevent the introduction of contagious diseases into the city, may make quarantine laws for that purpose, and enforce the same within five miles of the city.

[A city of the second class has power through proper ordinances to contract with persons to perform services at a place used substantially as a pest-house during a smallpox epidemic and to pay for infected bedclothing and other articles taken by the city. *City of McPherson v. Nichols*, 48 Kan. 430.]

PROHIBITING THE SELLING, GIVING OR FURNISHING OF TOBACCO OR OTHER NARCOTICS TO MINORS.

Gen. Stat. 1897, vol. 2, ch. 100.

SEC. 346. That it shall be unlawful for any person or persons in this state to sell, give or furnish any cigar, cigarette or tobacco in any form, opium or any other narcotic in any form, to any minor under sixteen years of age.

SEC. 347. The violation of any provision under this act shall constitute a misdemeanor, and any person found guilty thereof shall be fined in a sum not less than five dollars nor exceeding twenty-five dollars for each and every such offense.

SEC. 348. The provisions of this act shall not apply to the sale of any narcotic made upon the prescription of a regular practicing physician.

MISCELLANEOUS OFFENSES.

Gen. Stat. 1897, vol. 2, ch. 100.

SEC. 322. *Diluted or unclean milk.* Whoever shall knowingly sell, supply, or bring to be manufactured, to any cheese manufactory in this state, any milk diluted with water or in any way adulterated, or milk from which any cream has been taken, or milk commonly known as "skimmed milk"; or whoever shall keep back any part of the milk known as "strippings"; or whoever shall knowingly bring or supply milk to any cheese manufactory that is tainted or partly sour from want of proper care in keeping pails, strainers, or any vessel in which said milk is kept, clean and sweet, after being notified of such taint or carelessness; or any cheese manufacturer who shall knowingly use, or direct any of his employees to use, for his or their individual benefit, any cream from the milk brought to said cheese or butter manufacturers, without the consent of all the

owners thereof, shall, for each and every offense, forfeit and pay a sum not less than \$25 nor more than \$100, with costs, to be recovered in a criminal action.

SEC. 323. *Adulteration of cheese and milk.* That whosoever shall knowingly sell to any person or persons, or sell, deliver or bring to be manufactured to any cheese or butter manufactory in this state, any milk diluted with water or in any way adulterated, or milk from which any cream has been taken, or milk commonly known as "skimmed milk," or shall keep back any part of milk known as "strippings," with intent to defraud, or shall knowingly sell milk the product of a diseased animal or animals, or shall knowingly use any poisonous or deleterious material in the manufacture of cheese or butter, shall, upon conviction thereof, be fined in a sum not less than \$25 nor more than \$100, and liable in double the amount of the damages to the person or persons, firm, association or corporation upon whom such fraud shall be committed.

SEC. 324. *Unwholesome provisions.* If any person shall knowingly sell any kind of diseased, corrupt or unwholesome provisions, whether for meat or drink, without making the same fully known to the buyer, he shall be punished by imprisonment in the county jail not more than six months, or by fine not exceeding \$100.

SEC. 325. *Adulterating food or liquor.* If any person shall fraudulently adulterate, for the purpose of sale, any substance intended for food, or any wine, spirit, malt liquor, or other liquor intended for drinking, with any substance injurious to health, he shall be punished by imprisonment in the county jail not more than one year, or by fine not exceeding \$300; and the article so adulterated shall be forfeited and destroyed.

SEC. 326. *Adulterating drugs or medicines.* If any person shall fraudulently adulterate, for the purpose of sale, any drug or medicine, in such a manner as to render the same injurious to health, he shall be punished by imprisonment in the county jail not more than one year, or by fine not exceeding \$300; and such adulterated drugs and medicines shall be forfeited and destroyed.

ADULTERATION OF FOODS AND DRUGS.

Session Laws of 1889, ch. 29. Gen. Stat. 1897, ch. 100.

SEC. 327. That no person shall within this state manufacture for sale, offer for sale, or sell, any drug or article of food which is adulterated within the meaning of this act.

SEC. 328. The term "drug," as used in this act, shall include all medicines for internal or external use, antiseptics, disinfectants, and cosmetics. The term "food," as used herein, shall include all articles used for food or drink by man, whether simple, mixed, or compound.

SEC. 329. An article shall be deemed to be adulterated, within the meaning of this act: *First*, In case of drugs, if, when sold under or by a name recognized in the United States Pharmacopœia, it differs from the standard of strength, quality or purity laid down therein. *Second*, If, when sold under or by a name not recognized in the United States Pharmacopœia or other standard work of materia medica, it differs materially from the standard of strength, quality or purity laid down in such work. *Third*, If its strength, quality or purity falls below the professed standard under which it is sold. In the case of food: *First*, If any substance or substances have been mixed with it so as to lower, depreciate or injuriously affect its quality, strength, or purity. *Second*, If any inferior or cheaper substance or substances have been substituted wholly or in part of it. *Third*, If any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it. *Fourth*, If it is an imitation of or is sold under the name of another article. *Fifth*, If it consists

wholly or in part of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not, or in the case of milk, if it is the produce of a diseased animal. *Sixth*, If it is colored, coated, polished, or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is. *Seventh*, If it contains any added substance or ingredient which is poisonous or injurious to health, or any deleterious substance not a necessary ingredient in its manufacture; provided that the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles of food, if the same be distinctly labeled as mixtures or compounds, and are not injurious to health, and contain no ingredient not necessary to the preparation of a genuine article of such mixtures or compounds, and from which no necessary ingredient in its preparation is eliminated.

SEC. 330. Every person manufacturing, offering or exposing for sale, or delivering to purchaser, any drug or article included in the provisions of this act shall furnish to any person interested or demanding the same, who shall apply to him for the purpose and shall tender him the value of the same, a sample sufficient for analysis, of any such drug or article of food which is in his possession.

SEC. 331. Whoever refuses to comply upon demand with the requirements of section 330, or whoever violates any of the provisions of this act, shall be guilty of a misdemeanor, and upon conviction shall be fined not exceeding \$100 nor less than \$25, or imprisonment not exceeding 100 days nor less than 30 days, or both. And any person found guilty of manufacturing, offering for sale or selling any adulterated article of food or drug under the provisions of this act shall be adjudged to pay, in addition to the penalties hereinbefore provided for, all necessary costs and expenses incurred in inspecting and analyzing such adulterated articles which said person may have been guilty of manufacturing, selling, or offering for sale.

TO PREVENT THE SPREAD OF DISEASE AMONG SWINE.

SEC. 335. Whoever shall throw or deposit a dead hog in any river, stream, creek or ravine shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding \$100.

SELLING DISEASED ANIMALS.

Session Laws of 1886, ch. 158.

SEC. 336. Any person being the owner of any domestic animal or animals, or having the same in charge, who shall turn out or suffer any such domestic animal or animals having any contagious or infectious disease, knowing the same to be so diseased, to run at large upon any unenclosed land, common, or highway, or shall let the same approach within 100 feet of any highway, or shall sell or dispose of any domestic animal or animals, knowing the same to be so diseased, without fully disclosing the fact to the purchaser, shall be deemed guilty of a misdemeanor, and shall be punished by a fine in any amount not exceeding \$500 or imprisoned in the county jail not more than six months.

SEC. 337. Any person violating any of the provisions of this act [the preceding section], in addition to the penalties herein provided, shall be liable for all damages that may accrue to the party damaged by reason of said diseased animal or animals imparting disease.

RULES OF THE STATE BOARD OF HEALTH.

RULE I. No privy vault, cesspool or reservoir into which a privy vault, water-closet, stable or sink is drained, except it be water-tight, shall be permitted within fifty feet of any well, spring or other source of water used for drinking and culinary purposes; nor shall any such open into any stream, ditch, or drain, except common sewers.

RULE II. Earth privies or earth-closets, with no vault below the surface of the ground, shall be excepted in rule I, but sufficient dry earth or coal ashes must be used daily to absorb all the fluid parts of the deposit, and the entire contents must be removed monthly.

RULE III. All privy vaults, cesspools or reservoirs named in rule I must be cleaned at least once a year; and from the 1st day of May to the 1st of November of each year shall be thoroughly deodorized by adding to the contents of the vault once every month a solution of copperas in the proportion of one or two pounds to a pailful of water for each member of the family.

RULE IV. No night-soil or contents of cesspool shall be removed unless previously deodorized by the copperas solution as above, or disinfected with the corrosive-sublimate solution, and during removal material shall be covered with a layer of fresh earth, unless the removal be by the odorless excavating process.

RULE V. No sewer drain shall empty into any lake, pond, or other source of water used for drinking or other culinary purposes, nor into any pond, lake, or running water. Such drains passing within fifty feet in ordinary soil, or eighty feet in sandy soil, of any source of water-supply, shall be water-tight. All stagnant ponds must be drained or filled up.

RULE VI. The collection of refuse matter in or around the immediate vicinity of any dwelling or place of business, such as swill, waste of meat, fish or shells, bones, decaying vegetables, dead carcasses, excrement, or any kind of offal that may decompose and generate disease germs or unhealthy gases, and thus affect the purity of the air, shall be considered the worst kind of nuisance, and must be removed or disposed of, either by burial, burning, or otherwise, and in such manner as not to be offensive.

RULE VII. No diseased animal, or its flesh, and no decayed or diseased meat, fish, vegetables, or fruit, no impure or adulterated milk or other article used for food, shall be sold or offered for sale. No dead animal or offensive refuse shall be thrown upon the streets or adjoining lot to the street, or into or near any stream, spring, or well.

RULE VIII. No pig-pen shall be maintained within 100 feet of any well or spring of water used for drinking purposes, or within thirty feet of any street or inhabited house. Such pens shall be kept in such a manner as not to be offensive, by being freely deodorized at short intervals. No pigs shall be kept within the limits of any incorporated city between May 1 and November 1 of any year.

RULE IX. Every person owning, leasing or occupying any place, room or building wherein cattle, sheep or swine are killed or dressed, and every person being the owner, lessee or occupant of any stable wherein animals are kept, or of any market, public or private, shall cause such place, room, building, stable or

market to be kept at all times thoroughly cleansed and purified, and all offal, blood, fat, garbage, stable manure or other unwholesome or offensive refuse shall be removed therefrom at least once in every twenty-four hours, if used continuously, or, if only used occasionally, within twenty-four hours after using; and the floors of such building, place or premises shall be so constructed as to prevent blood, foul liquid or washings from being absorbed. No blood pit, dung pit, offal pit or privy well shall remain or be constructed within any such place, room, or building; nor shall swine be kept in the same enclosure with a slaughter-house, nor fed there or elsewhere upon the offal of slaughtered animals.

RULE X. No person shall maintain any manufactory or place of business where unwholesome, offensive or deleterious odors, gases, smoke, or exhalations are generated, such as tanneries, establishments for boiling bones of dead animals, etc., except such establishments shall be kept clean and wholesome; nor shall any offensive or deleterious or waste substance, refuse or injurious matter from such establishments be allowed to accumulate upon the premises, or be thrown or allowed to run into any public waters, stream, watercourse, street, road, or public place. And every person or company conducting such manufactory or business shall use all reasonable means to prevent the escape of smoke, gases, and odors, and to protect the health and safety of all operatives employed therein.

RULE XI. Whenever any householder shall know that any member of his family is taken sick or has died of smallpox, cholera, scarlet fever, diphtheria, or any other disease dangerous to the public health, he shall immediately give notice thereof to the nearest board of health or health officer, placing the case at once in charge of a physician, and placarding the house as prescribed in the following rule.

RULE XII. Whenever any physician shall know, or have reason to believe, that any person whom he is called to visit, or any person sick within his knowledge without the care of a physician, is infected with, or has died of cholera, smallpox, scarlet fever, diphtheria, or any disease dangerous to the public health, he shall immediately give notice thereof to the nearest board of health or health officer; and, if the case occurs in his own practice, shall at once cause a red or yellow cloth or card, not less than twelve inches square, with the name of the disease written or printed thereon in large characters, to be fastened upon the front door or other conspicuous part of the building in which the sickness prevails; such cloth or card to be maintained during the existence of the disease and until such time as the health officer, or, in his absence, the attending physician, acting by his authority and approval, is satisfied that the premises have been thoroughly disinfected and are fit for reoccupation.

RULE XIII. Any local board of health or health officer having knowledge of the existence of contagious or infectious disease, or of a death from such disease, within their jurisdiction, shall immediately exercise and maintain a supervision over such case or cases during their continuance, seeing that the provisions of these rules and of the duties of the local boards of health and health officers in such cases, as to isolation, restriction of communication, placarding, etc., shall be duly fulfilled. The health officer shall communicate without delay such information as to existing conditions as he possesses to the State Board of Health. He will confer personally, if practicable, otherwise by letter, with the physician in attendance upon the case, as to its future management and control, and with the authorities of the place as to their duties in the premises. Should the disease show a tendency to become epidemic, the public and private schools must be

closed, and, in extreme cases, church service suspended, and public assemblages of people at shows, circuses, theaters, fairs or other gatherings prohibited. In case of smallpox, a general and thorough vaccination should be recommended and insisted upon. (See section 9.)

RULE XIV. All persons sick with smallpox, cholera, scarlet fever, diphtheria, or other contagious or infectious disease, shall be thoroughly isolated from the public. Four hundred feet is suggested as the minimum distance for the thorough isolation of smallpox.

RULE XV. Members of any household in which cholera, smallpox, diphtheria, scarlet fever or measles exist should be required to abstain from attending places of public amusement, worship, or education, and, as far as possible, from visiting other private houses. No person recovering from such disease should be permitted to appear on the public streets or highways, or in any public place, until after danger from contagion is past. (See rule XXII.)

RULE XVI. In the event of death from any such disease, the clothing in which the body is attired should be sprinkled with thymol water, the body wrapped in disinfected cerecloth (a sheet thoroughly soaked in zinc disinfectant, double strength), and placed in an air-tight coffin, which is to remain in the sick-room until removed for burial. No public funeral must be allowed, either at the house or church, and no more persons should be permitted to go to the cemetery than are necessary to inter the corpse.

RULE XVII. The room occupied by a person sick with contagious or infectious disease must previously be cleared of all carpets, needless clothing, drapery and all other articles likely to harbor disease. After death or recovery, the room, furniture and other contents not to be destroyed must be immediately and thoroughly disinfected. The paper on the walls and ceiling must be removed and burned. The floor, woodwork and wooden furniture must be painted over with corrosive-sublimate solution, letting it remain one hour, and then washing it off with clean water. The walls, if not papered, must be thoroughly scrubbed and whitewashed. For use in the sick-room, small pieces of rags should be substituted for handkerchiefs, and when once used must be immediately burned.

RULE XVIII. Soiled bed and body linen must be placed in vessels and saturated with sulphate of zinc solution, then boiled one hour before removed from the premises.

RULE XIX. The discharges from the patient must be received into vessels containing some known disinfectant, and, if not buried at once, must be thrown into a cesspool or water-closet, but never on the ground, nor into a running stream. Perfect cleanliness on the part of the nurses and attendants is enjoined.

RULE XX. Fumigation with brimstone may be employed for disinfecting the premises. For this purpose the rooms to be disinfected must be vacated. Heavy clothing, blankets, bedding, and other articles which cannot be treated with zinc solution, must be opened and exposed during fumigation. To disinfect an ordinary room with brimstone: Having tightly closed all openings of the room, place in an open earthen dish, upon a couple of bricks, in a tub partly filled with water, three pounds of brimstone, in powder or small fragments, moistened with a little alcohol, and burn until consumed. After fumigation, the rooms must be thoroughly aired before reoccupation. (See rule XVII.)

RULE XXI. All articles which have been in contact with persons sick with contagious or infectious diseases, too valuable to be destroyed, should be treated as follows: Cotton, linen, flannels, blankets, etc., should be put, piece by piece, into a boiling-hot zinc solution, and boiled for at least one hour. Heavy woollen

clothing, silks, furs, stuffed bed covers, and other articles which cannot be treated with the zinc solution, should be hung in the room during the fumigation, their surfaces thoroughly exposed; afterward, they should be hung in the open air, beaten, and shaken. Pillows, beds, stuffed mattresses, upholstered furniture, etc., should be cut open, the contents spread out, and thoroughly fumigated. Carpets are best fumigated on the floor, but must afterward be removed to the open air and thoroughly beaten.

RULE XXII. Diphtheritic croup, croupous diphtheria, membranous croup, croup, putrid fever, diphtheritic sore throat, and sloughing sore throat, occurring in communities where diphtheria is prevalent, should be included among the diseases dangerous to public health, and subject to the same precautions as diphtheria. In like manner, patients suffering from or exposed to scarlatina or scarlet rash, or varioloid, should be required to undergo the precautions prescribed for scarlet fever and smallpox, respectively. (See rule xv.)

RULE XXIII. All births and deaths occurring in the practice of physicians shall be reported to the local board of health where the same occur within ten days after the expiration of the month in which they occur, in the manner indicated in the blank forms prepared by this board from time to time, and distributed through the county health officers; provided, that deaths occurring from infectious or contagious diseases shall be reported, as above described, within twenty-four hours after their occurrence. (See sections 9, 13; also, attorney-general's opinion.)

RULE XXIV. It shall be the duty of undertakers doing business within the state to keep a record of the burial cases sold by them, and to transmit monthly a record of same to the local board of health or health officer having jurisdiction over the territory in which the case is used.

RULE XXV. No person afflicted with any contagious or infectious disease dangerous to public health shall be admitted into any public or private school. No parent, guardian, tutor or other person having charge or control of children whose residence is infected with scarlet fever, diphtheria, cholera, smallpox or other contagious or infectious disease dangerous to the public health shall allow or permit them to attend any public or private school during the continuance of such infection. No person, until after being successfully vaccinated, shall be admitted into public or private schools or institutions of learning, either in the capacity of teacher or pupil. The vaccination should be repeated after the age of sixteen. The local boards of health shall exercise especial hygienic supervision over the schools and schoolhouses within their respective jurisdictions, and, where hygienic faults are found, said boards shall immediately call the attention of the school authorities thereto.

RULE XXVI. The following rule is made with respect to public institutions: It is respectfully recommended to the board of trustees of the state charitable institutions, the several boards of education, the trustees or directors of the several hospitals within the state, the officers and regents of the State University, Normal School, and Agricultural College, and other institutions of higher education, to make or cause to be made, by their health officers or attending physicians, or by one or more experts in sanitary science, at intervals of not exceeding one month, a thorough and critical examination of the institutions under their charge, with special reference to the purity of the water-supply, the disposal of slops and garbage, the draining and sewerage, cellars, cesspools, privy vaults, urinals, pig-pens, and especially sleeping apartments, and also report the same once a quarter to the State Board of Health. [December 29, 1897.] It is like-

wise recommended that the local boards of health exercise especial hygienic supervision over all such institutions within their jurisdiction.

RULE XXVII. The following regulations respecting the disinterment and transportation of dead bodies will be observed; Disinterment of bodies.—The removal of any body from its place of original interment is declared to be a nuisance, dangerous to the public health, and is prohibited unless the same be done under the directions and by permission of the local board of health or health authorities. The disinterment of the body of any person dead of any contagious or infectious disease is strictly prohibited, unless by special authority and upon such conditions as the local board of health or health authorities may impose. (See section 9.)

RULE XXVIII. All books, reports and papers of an official character in the hands of the county health officer are the property of the county or state; and all such property in the hands of such county health officer should be, and are hereby required to be, turned over, at the expiration of their term of office, to their successors in office.

RULE XXIX. It shall be the duty of every county health officer to collect and forward monthly returns of deaths, births and marriages reported by the physicians and midwives practicing in his county. It is his duty to see that the law is enforced in cases of neglect to make such reports to him. (See sections 11, 12.)

RULE XXX. In accordance with section 14 (ch. 75), "It shall be the duty of the assessors of personal property in the several townships and wards of cities throughout the state, annually, to collect such information as to marriages, births and deaths as may be required by the State Board of Health, and report the same, at the time and in the manner prescribed by the said board, to the local board of health." County health officers will see to it that the above section (14, 1897) shall be carried out by the assessors; and that the necessary blanks be furnished in due time, as to form, and time as required. (See section 12; also attorney-general's opinion, November 30, 1898.)

RULE XXXI. The following regulations respecting the transportation of dead bodies for burial beyond the county where the death occurred will be observed: No body which has died of any infectious or contagious disease shall be received for transportation by any transportation company in this state unless it shall have been embalmed by an undertaker holding an embalmer's certificate properly signed by the president and secretary of the State Board of Health. Every undertaker shall enter the number of his embalmer's certificate upon every permit which he fills out. In all such cases the said Board of Health shall require the coupons attached to such permit to be detached and preserved by every common carrier, or the person in charge of any vessel, railway train or vehicle to which dead bodies shall be delivered for transportation. No permit shall be issued for the transportation of bodies which have died of any infectious or contagious disease except in accordance with the foregoing rule. Any violation of these rules shall subject the offender to a fine of ten dollars for each offense.

RULE XXXII. Whenever any part of this state appears to be threatened with Asiatic cholera, smallpox, or other infectious or contagious disease, from any adjoining state or territory, the secretary and executive officer of this board shall have the power, and it shall be his duty, when requested by the mayor and council of any city of this state or by any local board of health of any city of this state or by the local board of health of any county of this state, to establish and maintain quarantine stations at the limits of the state at such points as may be deemed necessary, and to enforce thereat such rules and regulations as he may adopt and

publish for the purpose of preventing or obstructing the introduction or spread of such disease, by the inspection of all persons, places, and things, and the exclusion of all infected or suspected persons and goods, and the purification of all infected places and things. In the interim between the meetings of the State Board of Health, the secretary and executive officer of this board shall have the same power and authority to adopt and enforce all rules and regulations which may be necessary to prevent the introduction or spread of any such disease as is conferred upon the State Board of Health by section 1 of chapter 74 of the Laws of 1893.

RULES OF THE STATE BOARD OF HEALTH FOR THE TRANSPORTATION OF DEAD BODIES.

These rules, having been duly adopted and properly published have the full force of law.

RULE 1. The transportation of bodies dead of smallpox, Asiatic cholera, yellow fever, typhus fever or bubonic plague is absolutely forbidden.

RULE 2. The bodies of those who have died of diphtheria (membranous croup), scarlet fever (scarlatina, scarlet rash), glanders, anthrax or leprosy shall not be accepted for transportation unless prepared for shipment by being thoroughly disinfected by (a) arterial and cavity injection with an approved disinfectant fluid, (b) disinfecting and stopping of all orifices with absorbent cotton, and (c) washing the body with the disinfectant, all of which must be done by an embalmer holding a certificate as such approved by the State Board of Health or other state health authority. After being disinfected as above, such body shall be enveloped in a layer of cotton not less than one inch thick, completely wrapped in a sheet and bandaged, and encased in an air-tight zinc, tin, copper or lead lined coffin or iron casket, all joints and seams hermetically soldered, and all enclosed in a strong, tight wooden box. Or, the body, being prepared for shipment by disinfecting and wrapping as above, may be placed in a strong coffin or casket, and said coffin or casket encased in an air-tight zinc, copper or tin case, all joints and seams hermetically soldered, and all enclosed in a strong outside wooden box.

RULE 3. The bodies of those dead of typhoid fever, puerperal fever, erysipelas, tuberculosis, and measles, or other dangerous communicable diseases other than those specified in rules 1 and 2, may be received for transportation when prepared for shipment by filling cavities with an approved disinfectant, washing the exterior of the body with the same, stopping all orifices with absorbent cotton, and enveloping the entire body with a layer of cotton not less than one inch thick, and all wrapped in a sheet and bandaged, and encased in an air-tight coffin or casket; provided, that this shall apply only to bodies which can reach their destination within forty-eight hours from time of death. In all other cases such bodies shall be prepared for transportation in conformity with rule 2. But when the body has been prepared for shipment by being thoroughly disinfected by an embalmer holding a certificate as in rule 2, the air-tight sealing may be dispensed with.

RULE 4. The bodies of those dead of diseases that are not contagious infectious or communicable may be received for transportation when encased in a sound coffin or casket and enclosed in a strong outside wooden box, provided they reach their destination within thirty hours from time of death. If the body cannot reach its destination within thirty hours from time of death, it must be prepared for shipment by filling cavities with an approved disinfectant, washing the

exterior of the body with the same, stopping all orifices with absorbent cotton, and enveloping the entire body with a layer of cotton not less than one inch thick, and all wrapped in a sheet and bandaged, and encased in an air-tight coffin or casket. But when the body has been prepared for shipment by being thoroughly disinfected by an embalmer holding a certificate as in rule 2, the air-tight sealing may be dispensed with. .

RULE 5. In cases of contagious, infectious or communicable diseases, the body must not be accompanied by persons or articles which have been exposed to the infection of the disease, unless certified by the health officer as having been properly disinfected; and before selling passage tickets, agents shall carefully examine the transit permit and note the name of the passenger in charge, and of any others proposing to accompany the body, and see that all necessary precautions have been taken to prevent the spread of the disease. The transit permit in such cases shall specifically state who is authorized by the health authorities to accompany the remains. In all cases where bodies are forwarded under rule No. 2, notice must be sent by telegraph to health officer at destination, advising the date and train on which the body may be expected. This notice must be sent by or in the name of the health officer at the initial point, and is to enable the health officer at destination to take all necessary precautions at that point.

RULE 6. Every dead body must be accompanied by a person in charge, who must be provided with a passage ticket and also present a full first-class ticket marked "Corpse" for the transportation of the body, and a transit permit, showing physician's or coroner's certificate, health officer's permit for removal, undertaker's certificate, name of deceased, date and hour of death, age, place of death, cause of death, and if of a contagious, infectious or communicable nature, the point to which the body is to be shipped, and, when death is caused by any of the diseases specified in rule No. 2, the names of those authorized by the health authorities to accompany the body. The transit permit must be made in duplicate, and the signatures of the physician or coroner, health officer and undertaker must be on both the original and duplicate copies. The undertaker's certificate and paster of the *original* shall be detached from the transit permit and pasted on the end of the coffin box. The physician's certificate and transit permit shall be handed to the passenger in charge of the corpse. The whole duplicate copy shall be sent to the official in charge of the baggage department of the initial line, and by him to the secretary of the state or provincial board of health of the state or province from which such shipment was made.

RULE 7. When dead bodies are shipped by express, the whole original transit permit shall be pasted upon the outside box, and the duplicate forwarded by the express agent to the secretary of the state or provincial board of health of the state or province from which said shipment was made.

RULE 8. Every disinterred body, dead from any disease or cause, shall be treated as infectious or dangerous to the public health, and shall not be accepted for transportation unless said removal has been approved by the state or provincial health authorities having jurisdiction where such body is disinterred, and the consent of the health authorities of the locality to which the corpse is consigned has first been obtained; and all such disinterred remains shall be enclosed in a hermetically sealed (soldered) zinc, tin or copper lined coffin or box. Bodies deposited in receiving vaults shall be treated and considered the same as buried bodies.

RESOLUTIONS OF THE BOARD.

Resolved, That a sanitary inspector for each county be appointed by the board to make volunteer reports of the sanitary condition of their respective counties to the State Board of Health, as often as may be deemed necessary by the state board, or oftener if deemed necessary by said inspectors.

Resolved, That we, the State Board of Health, earnestly recommend that all school boards of cities of the first and second classes elect or appoint a sanitary school inspector for the schools of their respective cities, who shall inspect and report to said school boards upon all matters pertaining to sanitary measures affecting the health of said schools.

Resolved, That all persons practicing medicine in the state of Kansas by virtue of diplomas from the following so-called medical colleges are doing so illegally, and are subject to prosecution under the statutes of Kansas, and are hereby required to cease practice until legally qualified to do so according to law: Wisconsin Eclectic Medical College; Illinois Health University, Chicago; National Union Medical Society, Chicago; Missouri Eclectic Medical College, Kansas City, Mo.; the Independent Medical College; the American Eclectic Medical College of Cincinnati; the National College of Electro-therapeutics, at Lima, Ohio; the American Health College, at Cincinnati; and the Metropolitan Medical College of Chicago.

The following resolutions were passed by the State Board of Health at the regular meeting March 1, 1899:

Resolved, That the secretary be and is hereby directed to require the county health officers of the several counties of the state to make promptly to the State Board of Health the monthly and other reports, as required by the rules of this board and the laws of the state, and for persistent or wilful violation of said rules and laws legal measures be taken to enforce the same.

Resolved, That the State Board of Health, at its regular meeting in March, 1899, directs and hereby orders that measures be taken at once by the board, the secretary and the expert advisers of the board to examine all plans for public buildings, either new or additions to those now in existence, and make such recommendations in matters of sanitary interests, to wit, ventilation, heating, water-supply, and sewerage, and in any other respect, as may be in accordance with the latest developments in these branches, and make a full report to the State Board of Health, and to the authorities having charge over these matters in the expenditure of public moneys appropriated for the same, as fully as may be, and in accordance with section 10, chapter 75, General Statutes of 1897.

RECOMMENDATIONS.

The State Board of Health recommends that the several county health officers receive as compensation, according to size of county and duties to be performed, not less than \$25 per annum, to \$350; and that they be required by the county boards of health to perform their duties promptly and faithfully.

Health officers are requested to give the above the widest practical publicity among those concerned. Before instituting legal proceedings for the collection of death reports, the health officer should be prepared to prove conclusively, in a given case, that a copy or notice of said rule 23, as given herein, had been delivered personally, or given to the mails for transmission, to the delinquent before the date of the delinquency charged, and that he had, in like manner, supplied or offered to supply the delinquent with the necessary blank forms. An account

should be kept with all parties to whom you are required by law to distribute forms, and in making future issues notify all concerned of the above requirements until they be duly informed.

Prosecution for the collection of death returns must be instituted within sixty days of the date of the death. It therefore devolves upon the health officer to call upon the delinquent promptly after the tenth of each month. (See section 31, ch. 102, Gen. Stat. 1897.)

DUTIES AND POWERS OF LOCAL BOARDS OF HEALTH.

The following instructions are published by the State Board of Health for the purpose of acquainting local boards with the nature and extent of their duties and authority, and to define their relation to the State Board, that there may be substantial uniformity in the administration of the health laws of the state. In every county of the state there exists a local board of health. The law reads:

"SEC. 11. The county commissioners of the several counties of the state shall act as local boards of health for their respective counties. Each local board thus created shall elect a physician, who shall be, *ex officio*, a member of the board, and the health officer of the same. . . ."

It makes no difference as against this fact that, in some counties, no formal organization has thus far been effected, and no meeting of the board held. The responsibility, in case of disaster, is with them. It was not the intention to create local boards of health for a merely nominal existence; they have duties to perform.

The boards thus created are subordinate to the state board, which has prepared rules for their guidance. Such rules should be formally adopted, and enacted by ordinance or otherwise; and it is the duty of each board to formulate and adopt such additional rules and regulations as may be necessary to meet special conditions. All rules must be duly published.

INSTRUCTIONS AND SUGGESTIONS TO HEALTH OFFICERS.

It is required by law, under certain prescribed penalties, that upon the appointment of a health officer he shall report the fact, with his post-office address, to the State Board of Health, and that he shall thereafter perform such duties as his local board or the state board may require of him. Among these duties is the prompt distribution of all forms from the state board to the rightful persons, and the transmittal of returns from physicians, assessors and other local boards (including those existing by municipal regulation) to the state board; the transmittal to the state board of copies of the reports and publications of his board, and such sanitary information as may be useful to the people of the state.

The law constitutes him the medium of communication between all local boards of health (including those existing by municipal regulation) within his county and the State Board of Health.

The health officer is a member of the board of health of his county, by virtue of his office. He should, also, be its secretary, sanitary adviser, and executive officer. His powers, when not expressly stated in the statute, are only such as are conferred by his board. They should, therefore, be fully and clearly defined by resolutions or orders. He should be duly empowered to act in emergencies, as has been heretofore suggested.

As the sanitary adviser of his board, he will have influence in determining the action of the board in proportion to his knowledge of sanitary science and his honest effort for the promotion of the public health. He should make himself thoroughly acquainted with the health laws of the state and rules of his board

and of the State Board of Health. With this knowledge, if he be a trained physician, he will be equipped for service.

The reports of the health officer are a part of the records of the state board, to be kept for future reference and comparison with future conditions which will arise respecting their localities. This fact should stimulate him to contribute all that is possible to be obtained upon the subjects presented.

The following are suggested as the health officer's most important duties, viz.:

To order the prompt and thorough isolation of those sick or infected with contagious disease, so long as there is danger of their communicating the disease to other persons. The key-note of safety in such cases is the immediate, thorough and continued separation of the sick from the well.

To order the prompt vaccination and isolation of persons who have been exposed to smallpox.

To see that no person suffers for lack of nurses, or other necessities, because of isolation for the public good.

To give public notice of infected places, by newspaper notice and placard on the premises, and otherwise if necessary; and to disseminate the rules for disinfection, etc.

To promptly notify teachers or superintendents of schools concerning families in which are contagious diseases; to exercise especial hygienic supervision over the schools and schoolhouses within his jurisdiction.

To supervise funerals of persons dead from scarlet fever, diphtheria, smallpox, or other communicable diseases which endanger the public health.

To determine what shall be considered nuisances prejudicial to health, and take measures for their abatement or removal. (Sec. 263, ch. 95, vol. 2, 1897, abatement by injunction; Am. Encyc. of Law, vol. 16, p. 954.)

To be vigilant as to violations of the law governing the sale or exposure for sale of adulterated or unwholesome articles intended for food or medicine; adulterated or watered milk should especially receive his attention.

To investigate the condition of buildings with reference to means of escape in case of fire, and to report such as are found unsafe.

To notify parties liable to suffer in health from impure water, the source of which is near cesspools or privies or other accumulation of filth, or is polluted by sewage or other contaminations, and to make preliminary tests of such water when necessary.

To collect, tabulate, and transmit to the State Board of Health, as may be required, the various reports and returns as to the births, deaths, marriages, registration of physicians, and sanitary conditions pertaining to his county.

In the performance of these various duties, valuable suggestions will be afforded by an examination of the rules adopted by the State Board and the health laws of the state. It is expected that he will fully communicate with the board as to questions that may arise in connection with the performance of his duties, especially as to what measures he has inaugurated in the interests of public health, the nuisances abated, etc.

DISINFECTANT.

Formaldehyde is now the approved disinfectant for all surface disinfection.

DECISIONS OF ATTORNEYS GENERAL.

AUGUST 16, 1897.—In reference to the enforcement of the law and rule 23 of the State Board of Health, concerning *death reports*:

The law above referred to provides a penalty for failure to comply with its requirements, namely, a fine of ten dollars for each and every offense. Paragraph 6037, General Statutes of 1889 (sec. 16, ch. 75, 1897), imposes upon the county attorney the duty of conducting all prosecutions under said act. In case of neglect or refusal of any practicing physician to perform the duties imposed by said law, the local board of health or the health officer of said board may lodge complaint with the county attorney, whereupon it becomes the duty of said county attorney to prosecute. That would be, in my opinion, the advisable course for a county health officer to pursue, in order to procure the enforcement of the requirements provided by section 13, chapter 75, 1897, in regard to practicing physicians. In order to enforce the performance of his legal duties by the health officer, complaint might be in like manner lodged with the county attorney by the local board.

As to whether rule 23, as published in the Eleventh Annual Report of the State Board of Health, exceeds the authority delegated by sections 8 and 9, chapter 75, General Statutes of 1897, to the State Board of Health, sections 5 and 6, chapter 75, General Statutes of 1897, authorize the State Board of Health to make, adopt and publish such rules and order of business as may be necessary to make the act effective and facilitate the transaction of its business.

Rule 23, as published in the Eleventh Annual Report of the State Board of Health, is clearly in harmony with the provisions of section 9, chapter 75, General Statutes of 1897, and said paragraph provides a penalty for non-compliance therewith. The statutes provide the means of enforcing said rule 23.

L. C. BOYLE, *Attorney-general*.

MARCH 2, 1898.—In reference to the authority of the Improved Eclectic Medical Association, of Galena, to issue certificates to practice medicine:

I have examined the charter filed in the office of the secretary of state of the Improved Eclectic Medical Association, of Galena, Kan., which was filed February 28, 1898. The charter sets out that the purpose for which this corporation is formed is to improve the practice and teachings of medicine and its principles. So you will observe that there is nothing that would confer upon this corporation the power, privilege or prerogative to conduct a medical school for the purpose of graduating and licensing practitioners; neither is this such an association, in my judgment, as the statute contemplates may give a certificate to an applicant to practice medicine.

The statute provides, in substance, that before a person can practice medicine in this state he must be a graduate, first, of some reputable medical college, or second, he must have a certificate of qualification from some county or state society or association. This association is not a reputable medical college, nor is it a county or state medical society or association, within the contemplation of

the statute; but it simply is a private corporation, having no power under its charter except as therein set forth, to wit, to improve the practice and teachings of medicine and its principles.

I would further give it as my opinion that any diploma or any certificate that this association might give to a pretended practitioner would be no protection to him whatever, and that he would be amenable to our laws for the violation of the same whenever he attempted to practice medicine, having no authority for the same other than that conferred by the so-called The Improved Eclectic Medical Association, of Galena, Kan.

L. C. BOYLE, *Attorney-general.*

MARCH 18, 1898.—In reference (1) to rights of Christian Scientists to practice medicine and receive compensation; (2) to right of healer to practice medicine and receive compensation; (3) to traveling oculists who have not complied with the medical law of Kansas:

1. It is a query in my mind whether or not a Christian Scientist could be considered a physician or one who practices medicine. As I understand it, they go to the sick-room and there pray that the patient may be restored to health, and they sometimes pray for the patient when not present with him; they do not claim of themselves to have power to restore the patient to health, but say that the power is vested alone in Jehovah, and for that kind of service I would say it would not be construed as practicing medicine. In my judgment, a Christian Scientist is not a physician in any sense of the word; they would not have any right to prescribe any medicine, but they might have a right to charge for the prayer offered for the patient. And I might suggest that if they led the patient to believe that they had the power of intervention and that if they prayed for him he would be relieved, and the patient parted with his money relying on such representation, and such representation was false, and they did not have the power of intervention and could not obtain relief for the patient, and that Jehovah did not recognize them as His agents for the purpose of healing, that that kind of a Christian Scientist might get himself in trouble under the criminal law for obtaining property under false pretenses and by misrepresentation.

2. In reference to the healer, I do not know anything about the method that he uses in his practice. Yet if he holds himself out as a physician, and practices medicine in any of its departments, diagnoses the case, says what the remedy ought to be, and applies the same, in my judgment he would violate the law in reference to who might or might not practice medicine for pay in the state of Kansas.

3. In reference to the traveling oculist, will say, that it is my judgment that an oculist who operates upon the eye, or doctors the eye, holds himself out to be a physician the same as any person who practices medicine in any of its forms; that the eye is as much a part of the individual as is the stomach, head, bowels, or the limbs; that if he has not complied with the necessary requirements of the law that he would be amenable to the statutes, and might be prosecuted criminally. The law also further provides, that any person who has not attended two full courses of instruction and graduated in some respectable school of medicine, either of the United States or some foreign country, or who cannot produce a certificate of qualification from some state or county medical society, and is not a person of good moral character, has no right to practice medicine in any of its departments, for reward or compensation, for any sick person within the state of Kansas.

L. C. BOYLE, *Attorney-general.*

MARCH 28, 1898.—As to authority of osteopaths to practice osteopathy; also legality of school organized to teach osteopathy; in reference to worth of diplomas issued from medical colleges afterwards declared fraudulent by the courts; length of course in medical colleges:

It is my judgment, unless they have complied with the law regulating the practice of medicine in this state, to wit, having taken two full courses of lectures at some reputable college either of this country or some foreign country, and graduated, or they have received a certificate permitting them to practice from some state or county medical society or association, that they are not entitled to practice osteopathy; that they have no right to charge a sick person any compensation for the services rendered, and that they would also be amenable to the criminal law of this state prohibiting persons from practicing medicine until they had been properly qualified as by statute provided.

The fact that certain parties have taken out a charter giving them the privilege of conducting a school for the purpose of disseminating the teachings of osteopathy does not confer upon that society any privilege that they did not have before the charter was taken out, except that they are authorized to teach what they call a scientific principle, and the graduates from their school, unless it should be recognized as a respectable medical college, would not be entitled to practice medicine in this state and receive compensation therefor. The only college that can confer upon individuals the right to practice medicine in this state for compensation and free him from the criminal law is a recognized college, either of this country or some foreign country. And if this is a genuine medical college, and after due course of study, the party taking two full courses of lectures and having graduated, then, if it should be determined by a jury or the proper authority that this was a reputable medical college, the party who holds the diploma would be entitled to practice medicine; otherwise not. And in arriving at the fact whether it is a reputable medical college under the law as it now exists, I know of no way, except to have that case settled by the courts. The law does not at the present time confer upon the Board of Health that power; but a man must take his chances when he graduates from some new school that has not a reputation established as to whether or not it will be decided that the institution which graduated him and gave him his diploma is a reputable school. If it should be decided that it is not, his diploma, so far as entitling him to practice is concerned, would be absolutely worthless; and ordinarily I would say, that two full courses in a medical college means two full years of study, and does not mean two full courses of a month or two each.

L. C. BOYLE, *Attorney-general.*

JULY 15, 1898.—In reference to the proper course to pursue to compel a county health officer to comply with the statutes of the state respecting his duties:

The law provides that the county commissioners of the several counties shall act as local boards of health for their respective counties. Each such local board is directed to elect a physician, who shall be *ex officio* a member of said local board and the health officer of the same. Said health officer holds his office during the pleasure of the board, and he may be removed for just cause at any regular meeting of said board by a majority of the members (exclusive of the health officer) voting therefor. (Sec. 11, ch. 75, Gen. Stat. 1897.)

Section 12 of said chapter 75 provides as follows regarding the duties of such local health officer, his compensation, and the penalty for failure or neglect to perform the duties therein prescribed :

"The health officer of the several local boards of health throughout the state, immediately after his election, shall notify the state board of the fact, and give his post-office address. He shall receive and distribute, without delay, in the county for which he is appointed, all forms from the State Board of Health to the rightful persons, and all returns from physicians, assessors and local boards to the said State Board of Health, and he shall perform such other duties as this act, his local board or the State Board of Health may require of him. He shall receive for his services such reasonable compensation as his board may allow, to be paid out of the county treasury. And, for any failure or neglect of said health officer to perform any of the duties prescribed in this act, he shall, upon conviction thereof, be fined ten dollars for each and every offense."

From the foregoing, it appears that the local health officer may be removed at any regular meeting of the local board by a majority vote of the members thereof (exclusive of said health officer), and for neglect of his official duties may be punished by a fine of ten dollars for each and every offense of which he shall be convicted. But before such fine can be adjudged against him he must be legally convicted by a competent court, upon information or complaint specifically setting up the offense or offenses upon which he is to be prosecuted. It is the duty of the county attorney of the county in which the offense is committed to prosecute the same when called upon so to do. L. C. BOYLE, *Attorney-general*.

AUGUST 17, 1898.—In reference to illegal practitioners; also as to what constitutes a legal state or county medical society that may issue certificates bearing full authority for holders to practice medicine :

"That it shall be unlawful for any person within the limits of the state of Kansas who has not attended two full courses of instruction and graduated in some respectable school of medicine, either in the United States or some foreign country, or who cannot produce a certificate of qualification from some state or county medical society, and is not a person of good moral character, to practice medicine in any of its departments, for reward or compensation, for any sick person within the state of Kansas," etc.

It is my judgment that the intent and object of the legislature in passing said section of the statute was to protect the sick people of this state from being imposed upon by self-styled medical practitioners, and that no one has a right to practice medicine in this state for reward when he pretends to be a regular physician unless he has complied with the provisions of this law.

You say you particularly desire my opinion in reference to what constitutes a state or county medical society that may issue a certificate of qualification to an individual, which shall be accepted as a license, and permit him to practice medicine in its several departments in this state.

I am of the opinion that a state society, or county medical society, in order to have the power to confer a certificate of this kind, must be organized, first, in good faith; second, that the parties who are members of this society, whether it be a state or county society, must be persons who are entitled under the law of this state to practice medicine. My reason for the latter observation is that these parties, before they would know whether or not an applicant for a certificate is qualified to practice medicine, must make an examination, and from said examination ascertain his medical ability; and that parties who were not themselves regular practicing physicians under the laws of this state, and who do not possess the requisite technical medical knowledge, would not be competent to conduct an examination along medical lines, unless they possess knowledge of the kind and character about which the inquiry was being made.

You also suggest in your communication as to whether, in my opinion, a state medical society incorporated under the laws of the state of Kansas, with a membership of five persons, would be such a society as the law contemplated for the purpose of issuing certificates in reference to the qualifications of individuals in this state to practice medicine. That question is really already answered in the foregoing, wherein, in substance, I said that the examination should, in my opinion, be conducted by physicians who themselves possess technical medical learning. If made by individuals who do not possess the requisite learning along the lines on which the examination is conducted, of necessity it must be worthless for all purposes, and especially must it be worthless so far as protecting the public against incompetent persons who practice medicine without the requisite foundation therefor.

L. C. BOYLE, *Attorney-general*.

NOVEMBER 30, 1898.—Enforcement of rule 30 of the State Board of Health:

"It shall be the duty of every county health officer to collect and forward monthly returns of deaths, births and marriages reported by physicians and midwives practicing in his county. It is his duty to see that the law is enforced, in cases of neglect to make such reports to him."

It is my judgment, where the statute gives the State Board of Health express authority to make rules and regulations, that the board, under those circumstances, have full power to make these rules. The only way of enforcing a rule, when made by the State Board, is by a penalty which the legislature may have fixed at the time it gave the state board the authority to enact these rules and regulations. With this thought in view, we will examine section 12 of chapter 75, Compiled Laws of 1897, which said section reads as follows, to wit:

"The health officer of the several local boards of health throughout the state, immediately after his election, shall notify the state board of the fact and give his post-office address. He shall receive and distribute, without delay, in the county for which he is appointed, all forms from the State Board of Health to the rightful persons, and all returns from physicians, assessors and local boards to the said State Board of Health, and he shall perform such other duties as this act, his local board or the State Board of Health may require of him. He shall receive for his services such reasonable compensation as his board may allow, to be paid out of the county treasury, and for any failure or neglect of said health officer to perform any of the duties prescribed in this act he shall, upon conviction thereof, be fined ten dollars for each and every offense."

By carefully analyzing the section just quoted, it is clear to my mind that the health officer of the several local boards of health throughout the state is required to perform such duties as his local board or state board may require of him; that is, such duties as would naturally be connected with the official position which he has assumed to occupy. This being true, it would not be any stretch of imagination, in my judgment, to say that his duty should be to see that the law is enforced in reference to the reports of deaths, births, and marriages. If he fails to do this, as prescribed in rule 30, after the same is called to his attention, I know of no reason why he should not be punished as provided in said section 12 above referred to; that is to say, for any failure or neglect of said health officer to perform any of the duties prescribed in this act he shall, upon conviction, be fined ten dollars for each and every offense.

L. C. BOYLE, *Attorney-general*.

APRIL 10, 1899.—As to what means there is to compel county commissioners to appoint a county health officer:

DEAR SIR: Your favor to-day, stating that certain county boards have failed to appoint county health officers, as required by section 11 of chapter 25, General Statutes of 1897, and inquiring what remedy there is, is at hand. Replying, I beg to state that, unless the county boards will appoint, as required, upon suggestion to them from you, the only remedy I know of to compel appointment is by an action in mandamus, and would suggest that, upon refusal of any county board to so appoint, you confer with the county attorney, with a view to compel action by such board.

A. A. GODARD, *Attorney-general.*

REPORTS OF STATE INSTITUTIONS.

The following reports were received from the various public institutions of the state, for the year ending December 31, 1901 :

State Hospital at Topeka. At the close of the year there were 951 inmates in this institution. During the year there were 6 cases of contagious diseases, all smallpox. Seventy-nine deaths occurred, from the following causes: Chronic mania, 14; epilepsy, 10; senile dementia, 10; phthisis pulmonalis, 8; cardiac disease, syphilitic paresis, 5; paralytic dementia, 3; cerebral hemorrhage, 3; apoplexy, 2; acute mania, 3; pneumonia, 2; paresis, 2; chronic melancholia, 2; dysentery, 2; dropsy, 1; meningitis, 1; cerebral paralysis, 1; acute cerebritis, 1; tuberculosis of the bowels, 1; carcinoma, 1; suicide, 1; Bright's disease, 1.—T. C. BIDDLE, M. D., *Superintendent*.

State Hospital at Osawatimie. At the close of the year there were 1074 inmates in this institution. During the year there were 20 cases of contagious diseases, all smallpox. One hundred and thirty-two deaths occurred, from the following causes: Chronic mania, 13; acute mania, 6; chronic melancholia, 12; phthisis pulmonalis, 31; senile dementia, 10; paralysis, 6; nephritis, 2; syphilitic dementia, 1; chorea, 1; dislocated femur, 1; carcinoma, 2; mitral insufficiency, 6; pneumonia, 3; epilepsy, 13; apoplexy, 6; la grippe, 1; suicide, 1; cerebral hemorrhage, 2; accident, 1; paresis, 8; phlegmonous pharyngitis, 1; Bright's disease, 1; chronic diarrhea, 1; overcome by heat, 3.—L. L. UHLS, M. D., *Superintendent*.

State School for Feeble-minded Youth, at Winfield. At the close of the year there were 285 inmates in this institution. There were no cases of contagious diseases during the year. Thirteen deaths occurred, from the following causes: La grippe, 1; paralysis, 1; inflammation stomach and bowels, 1; septicemia, 1; consumption, 1; epileptic convulsions, 4; malnutrition, 1; heart failure, 1; pneumonia, 1.—C. S. NEWLON, M. D., *Superintendent*.

State Industrial School for Girls, at Beloit. At the close of the year there were 109 inmates in this institution. During the year there were no cases of contagious disease. No deaths occurred.—JULIA B. PERRY, *Superintendent*.

State Industrial Reformatory, at Hutchinson. At the close of the year there were 260 inmates in this institution. During the year there were two cases of contagious disease, both smallpox. One death occurred, from abscess of liver.—A. M. HUTCHINSON, M. D.

State Soldiers' Home, at Fort Dodge. At the close of the year there were 396 inmates in this institution. During the year there was one case of contagious disease, varicella. Thirteen deaths occurred, from the following causes: Tuberculosis, 3; spinal meningitis, 1; Bright's disease, 1; paralysis, 2; fractured hip, 1; old age, 5.—G. L. NEAL, M. D., *Home Surgeon*.

The following reports were received from the various public institutions of the state for the year ending December 31, 1902 :

State Hospital at Topeka. At the close of the year there were 989 inmates in this institution. During the year there were 17 cases of contagious diseases:

Typhoid fever, 8; erysipelas, 5; mumps, 4. Fifty-three deaths occurred, from the following causes: Puerperal mania, 1; septicemia, 1; chronic melancholia, 7; senile dementia, 7; erysipelas, 1; chronic mania, 9; paresis, 7; phthisis pulmonalis, 6; acute mania, 2; cardiac disease, 3; epilepsy, 2; typhoid fever, 1; suicide, 1; cerebral hemorrhage, 1; shock, 1; apoplexy, 2; angina pectoris, 1.—T. C. BIDDLE, M. D., *Superintendent*.

State Hospital at Osawatomie. At the close of the year there were 1127 inmates in this institution. During the year, there were no cases of contagious disease. One hundred and nineteen deaths occurred, from the following causes: Senility, 5; phthisis pulmonalis, 20; melancholia, 5; suicide, 2; acute mania, 5; fracture of femur, 1; cardiac disease, 2; nephritis, 4; alcoholic dementia, 2; hepatitis, 2; Bright's disease, 1; senile dementia, 9; paresis, 4; gangrene of foot, 1; apoplexy, 3; chorea, 1; pneumonia, 2; chronic insanity, 15; epilepsy, 12; paralysis, 3; typhoid fever, 1; cancer, 1; ovarian tumor, 1; dysentery, 1; multiple sclerosis, 1; acute dementia, 2; gastritis, 2; pericarditis, 1; uremic poison, 1; enteritis, 1; unknown, 4. The sanitary condition of buildings is good. We have a very good sewage system. We should have a stand-pipe.—L. L. UHL, M. D., *Superintendent*.

School for Feeble-minded Youth, at Winfield. At the close of the year there were 310 inmates in this institution. There were no cases of contagious diseases during the year. Thirteen deaths occurred, from the following causes: Consumption, 2; epilepsy, 2; septicemia, 2; bronchitis, 1; spinal meningitis, 2; inflammation of bowels, 3; brain fever, 1. The present health of inmates is good. The sanitary condition of the building is good.—C. S. NEWLON, M. D., *Superintendent*.

Industrial School for Girls, at Beloit. At the close of the year there were 139 inmates in this institution. During the year there were twenty cases of chicken-pox. No deaths from any causes occurred. The present health of the inmates is good.—JULIA B. PERRY, *Superintendent*.

State Industrial Reformatory, at Hutchinson. At the close of the year there were 293 inmates in this institution. During the year there was one case of smallpox. No deaths occurred from any causes. The present health of the inmates is good.

State Soldiers' Home, at Fort Dodge. At the close of the year there were 459 inmates in this institution. There were no cases of contagious diseases during the year. Eleven deaths occurred, from the following causes: Dropsy, 2; paralysis, 2; hemorrhage of lungs, 1; phthisis, 1; debility from age, 2; cancer, 1; suicide, 1; heart failure, 1. The present health of the inmates is good.—G. L. NEAL, M. D., *Home Surgeon*.

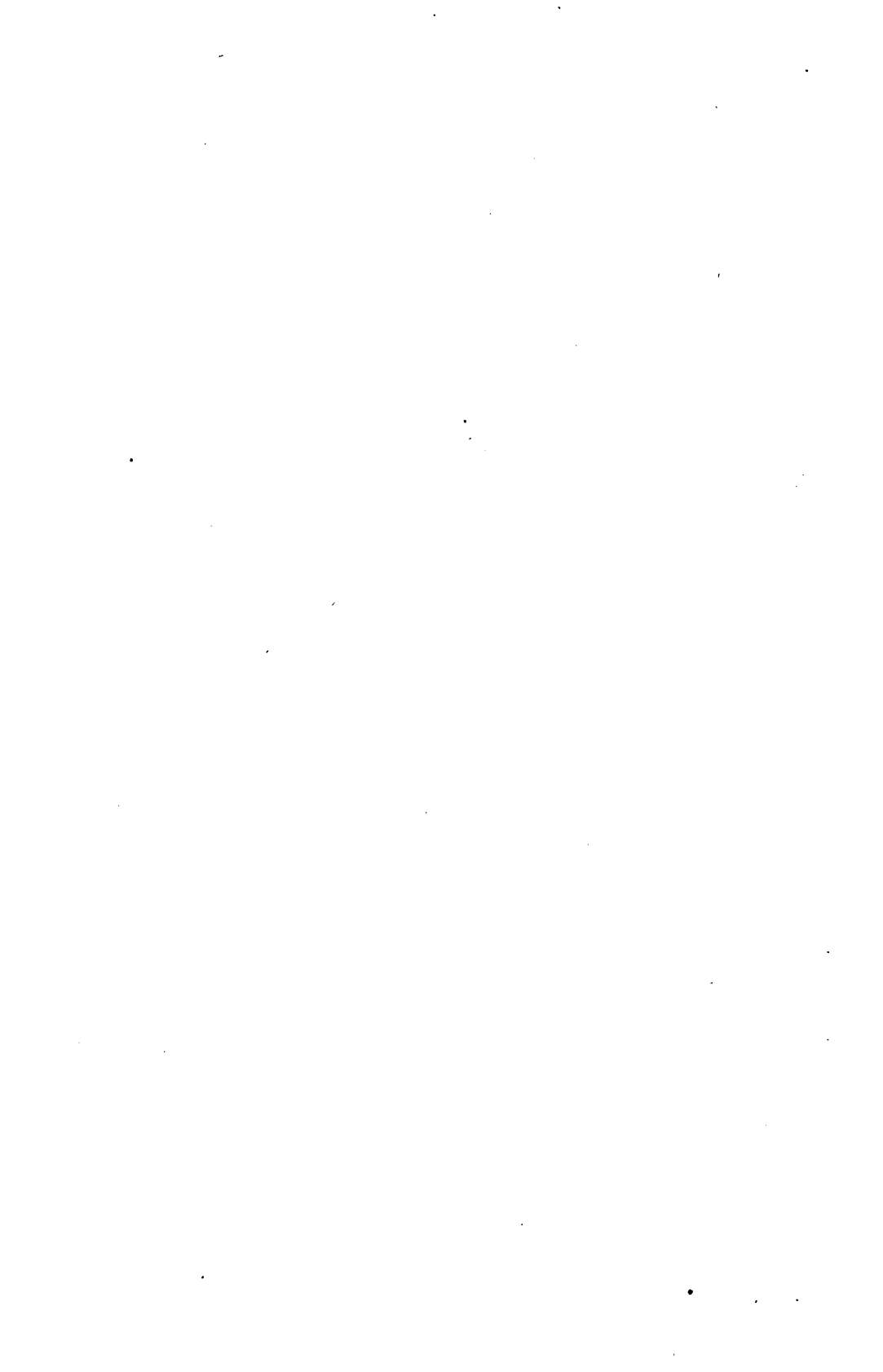
Soldiers' Orphans' Home, at Atchison. At the close of the year there were 170 inmates in this institution. No cases of contagious diseases occurred during the year and no deaths. The present health of the inmates is good. An improvement should be made in the disposal of sewage, which all runs upon the open ground, not over 500 feet from the buildings, and some day we will have contagion.—E. L. HILLIS, *Superintendent*.

State Penitentiary, at Lansing. At the close of the year there were 1059 inmates in this institution. There were no cases of contagious diseases during the year. Ten deaths occurred, from the following causes: Malarial remittent fever, 1; pneumonia, 1; neuralgia of heart, 2; concussion of brain, 1; consumption, 3; catarrh, 1; inflammation of bowels, 1. The present health of the in-

mates is good. New water-pipes are needed in the buildings.—E. B. JEWETT, Warden.

Kansas School for the Deaf, at Olathe. At the close of the year there were 245 inmates. There were three cases of scarlet fever during the year. No deaths occurred from any causes. It is very hard to quarantine, as there is no hospital. The need of one will be urged upon the coming legislature. The present health of the inmates is very good. In regard to improvements in buildings, when the present plans of sanitation have been completed, all will have been done that modern sanitary measures require. These plans involve fully equipping lavatory buildings now only partly equipped.—H. C. HAMMOND, Superintendent.

VITAL STATISTICS FOR KANSAS,
COMPRISING
RETURNS OF
MARRIAGES, BIRTHS, AND DEATHS;
ALSO,
ANNUAL REPORTS OF COUNTY HEALTH OFFICERS.



VITAL STATISTICS RETURNED BY ASSESSORS.

Returns of vital statistics by assessors for the years ending March 1, 1901, and March 1, 1902:

ALLEN COUNTY.

1900.

Marriages.—Total number of marriages, 83. Color: White, 81; not stated, 2.

Births.—Total number of births, 255. Sex: Male, 135; female, 120. Color: White, 253; colored, 2.

Deaths.—Total number of deaths, 81. Sex: Male, 37; female, 43; not stated, 1. Color: White, 79; colored, 1; not stated, 1.

1901.

Marriages.—Total number of marriages, 78. Color: White, 77; not stated, 1.

Births.—Total number of births, 397. Sex: Male, 197; female, 200. Color: White, 358; colored, 10; not stated, 29.

Deaths.—Total number of deaths, 82. Sex: Male, 60; female, 24. Color: White, 80; colored, 2.

ANDERSON COUNTY.

1900.

Marriages.—Total number of marriages, 65. Color: White, 64; not stated, 1.

Births.—Total number of births, 146. Sex: Male, 80; female, 66. Color: White, 144; colored, 2.

Deaths.—Total number of deaths, 62. Sex: Male, 36; female, 23; not stated, 1. Color: White, 57; colored, 4; not stated, 1.

1901.

Marriages.—Total number of marriages, 83. Color: White, 83.

Births.—Total number of births, 184. Sex: Male, 90; female, 94. Color: White, 182; colored, 2; not stated, 2.

Deaths.—Total number of deaths, 49. Sex: Male, 26; female, 23. Color: White, 47; colored, 2.

ATCHISON COUNTY.

1900.

Marriages.—Total number of marriages, 59. Color: White, 52; colored, 3; not stated, 4.

Births.—Total number of births, 76. Sex: Male, 40; female, 36. Color: White, 76.

Deaths.—Total number of deaths, 47. Sex: Male, 28; female, 19. Color: White, 46; colored 1.

1901.

Marriages.—Total number of marriages, 32. Color: White, 31; colored, 1.

Births.—Total number of births, 67. Sex: Male, 38; female, 29. Color: White, 63; colored, 4.

Deaths.—Total number of deaths, 36. Sex: Male, 20; female, 16. Color: White, 30; colored, 3; not stated, 3.

BARBER COUNTY.

1900.

Marriages.—Total number of marriages, 17. Color: White, 17.

Births.—Total number of births, 45. Sex: Male, 20; female, 25. Color: White, 45.

Deaths.—Total number of deaths, 14. Sex: Male, 7; female, 7. Color: White, 13; not stated, 1.

1901.

Marriages.—Total number of marriages, 35. Color: White, 19; not stated, 16.

Births.—Total number of births, 89. Sex: Male, 47; female, 42. Color: White, 88; colored, 1.

Deaths.—Total number of deaths, 29. Sex: Male, 18; female, 11. Color: White, 28; not stated, 1.

BARTON COUNTY.

1900.

Marriages.—Total number of marriages, 65. Color: White, 59; colored, 3; not stated, 3.

Births.—Total number of births, 173. Sex: Male, 78; female, 92; not stated, 3. Color: White, 171; colored, 2.

Deaths.—Total number of deaths, 57. Sex: Male, 27; female, 27; not stated, 3. Color: White, 44; colored, 1; not stated, 12.

1901.

Marriages.—Total number of marriages, 87. Color: White, 82; colored, 5.

Births.—Total number of births, 285. Sex: Male, 144; female, 138; not stated, 3. Color: White, 254; colored, 4; not stated, 27.

Deaths.—Total number of deaths, 89. Sex: Male, 47; female, 42. Color: White, 82; colored, 3; not stated, 4.

BOURBON COUNTY.

1900.

Marriages.—Total number of marriages, 138. Color: White, 130; colored, 8.

Births.—Total number of births, 255. Sex: Male, 144; female, 111. Color: White, 246; colored, 9.

Deaths.—Total number of deaths, 134. Sex: Male, 67; female, 67. Color: White, 127; colored, 7.

1901.

Marriages.—Total number of marriages, 155. Color: White, 148; colored, 7.

Births.—Total number of births, 218. Sex: Male, 114; female, 103; not stated, 1. Color: White, 210; colored, 8.

Deaths.—Total number of deaths, 191. Sex: Male, 117; female, 74. Color: White, 175; colored, 16.

BROWN COUNTY.

1900.

Marriages.—Total number of marriages, 158. Color: White, 141; colored, 1; not stated, 16.

Births.—Total number of births, 432. Sex: Male, 215; female, 199; not stated, 18. Color: White, 418; colored, 14.

Deaths.—Total number of deaths, 171. Sex: Male, 65; female, 87; not stated, 19. Color: White, 150; colored, 6; not stated, 15.

BROWN COUNTY.

1901.

Marriages.—Total number of marriages, 136. Color: White, 123; colored, 4; not stated, 9.

Births.—Total number of births, 348. Sex: Male, 166; female, 180; not stated, 2. Color: White, 341; colored, 7.

Deaths.—Total number of deaths, 132. Sex: Male, 64; female, 66; not stated, 2. Color: White, 116; colored, 7; not stated, 9.

BUTLER COUNTY.

1900.

Marriages.—Total number of marriages, 113. Color: White, 112; not stated, 1.

Births.—Total number of births, 270. Sex: Male, 141; female, 129. Color: White, 269; colored, 1.

Deaths.—Total number of deaths, 128. Sex: Male, 69; female, 58; not stated, 1. Color: White, 128.

1901.

Marriages.—Total number of marriages, 127. Color: White, 117; colored, 3; not stated, 7.

Births.—Total number of births, 359. Sex: Male, 169; female, 185; not stated, 5. Color: White, 332; colored, 2; not stated, 25.

Deaths.—Total number of deaths, 168. Sex: Male, 69; female, 83; not stated, 16. Color: White, 127; colored, 2; not stated, 39.

CHASE COUNTY.

1900.

Marriages.—Total number of marriages, 68. Color: White, 63; not stated, 5.

Births.—Total number of births, 150. Sex: Male, 87; female, 63. Color: White, 150.

Deaths.—Total number of deaths, 38. Sex: Male, 22; female, 16. Color: White, 38.

1901.

Marriages.—Total number of marriages, 46. Color: White, 39; not stated, 7.

Births.—Total number of births, 122. Sex: Male, 57; female, 65. Color: White, 118; colored, 1; not stated, 3.

Deaths.—Total number of deaths, 28. Sex: Male, 16; female, 12. Color: White, 27; colored, 1.

CHAUTAUQUA COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 56. Color: White, 54; colored, 1 not stated, 1.

Births.—Total number of births, 184. Sex: Male, 95; female, 89. Color: White, 182; colored, 1; not stated, 1.

Deaths.—Total number of deaths, 59. Sex: Male, 36; female, 23. Color: White, 59.

CHEROKEE COUNTY.

1900 (incomplete).

Marriages.—Total number of marriages, 86. Color: White, 86.

Births.—Total number of births, 199. Sex: Male, 104; female, 95. Color: White, 194; colored, 5.

Deaths.—Total number of deaths, 96. Sex: Male, 60; female, 36. Color: White, 92; colored, 4.

1901.

Marriages.—Total number of marriages, 104. Color: White, 88; colored, 4; not stated, 12.

Births.—Total number of births, 362. Sex: Male, 195; female, 167. Color: White, 341; colored, 21.

Deaths.—Total number of deaths, 149. Sex: Male, 76; female, 61; not stated, 12. Color: White, 128; colored, 9; not stated, 12.

CHEYENNE COUNTY.

1900.

Marriages.—Total number of marriages, 18. Color: White, 17; not stated, 1.

Births.—Total number of births, 58. Sex: Male, 28; female, 24; not stated, 6. Color: White, 58.

Deaths.—Total number of deaths, 14. Sex: Male, 6; female, 8. Color: White, 14.

1901.

Marriages.—Total number of marriages, 11. Color: White, 10; not stated, 1.

Births.—Total number of births, 62. Sex: Male, 34; female, 28. Color: White, 62.

Deaths.—Total number of deaths, 17. Sex: Male, 12; female, 5. Color: White, 16; not stated, 1.

CLARK COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 4. Color: White, 4.

Births.—Total number of births, 11. Sex: Male, 5; female, 6. Color: White, 11.

Deaths.—Total number of deaths, 6. Sex: Male, 3; female, 3. Color: White, 6.

CLAY COUNTY.

1900.

Marriages.—Total number of marriages, 66. Color: White, 65; not stated, 1.

Births.—Total number of births, 210. Sex: Male, 112; female, 98. Color: White, 209; colored, 1.

Deaths.—Total number of deaths, 65. Sex: Male, 40; female, 25. Color: White, 60; not stated, 5.

1901.

Marriages.—Total number of marriages, 46. Color: White, 46.

Births.—Total number of births, 214. Sex: Male, 112; female, 100; not stated, 2. Color: White, 214.

Deaths.—Total number of deaths, 59. Sex: Male, 18; female, 28; not stated, 13. Color: White, 45; not stated, 14.

CLOUD COUNTY.

1900.

Marriages.—Total number of marriages, 109. Color: White, 109.

Births.—Total number of births, 296. Sex: Male, 153; female, 143. Color: White, 294; colored, 2.

Deaths.—Total number of deaths, 88. Sex: Male, 53; female, 35. Color: White, 87; colored, 1.

1901.

Marriages.—Total number of marriages, 137. Color: White, 135; not stated, 2.

Births.—Total number of births, 324. Sex: Male, 164; female, 160. Color: White, 322; not stated, 2.

Deaths.—Total number of deaths, 123. Sex: Male, 72; female, 51. Color: White, 98; not stated, 25.

COFFEY COUNTY.

1900.

Marriages.—Total number of marriages, 60. Color: White, 58; colored, 2.

Births.—Total number of births, 154. Sex: Male, 71; female, 83. Color: White, 153; colored, 1.

Deaths.—Total number of deaths, 82. Sex: Male, 44; female, 38. Color: White, 82.

1901.

Marriages.—Total number of marriages, 91. Color: White, 90; colored, 1.

Births.—Total number of births, 216. Sex: Male, 115; female, 101. Color: White, 215; colored, 1.

Deaths.—Total number of deaths, 79. Sex: Male, 42; female, 37. Color: White, 77; colored, 2.

COMANCHE COUNTY.

1900.

Marriages.—Total number of marriages, 9. Color: White, 9.

Births.—Total number of births, 18. Sex: Male, 14; female, 4. Color: White, 18.

Deaths.—Total number of deaths, 7. Sex: Male, 6; female, 1. Color: White, 7.

1901.

Marriages.—Total number of marriages, 10. Color: White, 10.

Births.—Total number of births, 19. Sex: Male, 9; female, 10. Color: White, 19.

Deaths.—Total number of deaths, 3. Sex: Male, 2; female, 1. Color: White, 3.

COWLEY COUNTY.

1900.

Marriages.—Total number of marriages, 186. Color: White, 174; colored, 6; not stated, 6.

Births.—Total number of births, 394. Sex: Male, 210; female, 184. Color: White, 384; colored, 10.

Deaths.—Total number of deaths, 170. Sex: Male, 92; female, 76; not stated, 2. Color: White, 160; colored, 5; not stated, 5.

COWLEY COUNTY.

1901.

Marriages.—Total number of marriages, 225. Color: White, 217; colored, 3; not stated, 5.

Births.—Total number of births, 459. Sex: Male, 226; female, 233. Color: White, 449; colored, 9; not stated, 1.

Deaths.—Total number of deaths, 187. Sex: Male, 98; female, 89. Color: White, 181; colored, 5; not stated, 1.

CRAWFORD COUNTY.

1900.

Marriages.—Total number of marriages, 245. Color: White, 94; colored, 2; not stated, 149.

Births.—Total number of births, 398. Sex: Male, 195; female, 197; not stated, 6. Color: White, 390; colored, 8.

Deaths.—Total number of deaths, 196. Sex: Male, 111; female, 79; not stated, 6. Color: White, 146; colored, 4; not stated, 46.

1901.

Marriages.—Total number of marriages, 255. Color: White, 244; colored, 5; not stated, 6.

Births.—Total number of births, 498. Sex: Male, 251; female, 246; not stated, 1. Color: White, 463; colored, 16; not stated, 19.

Deaths.—Total number of deaths, 206. Sex: Male, 110; female, 95; not stated, 1. Color: White, 195; colored, 11.

DECATUR COUNTY.

1900.

Marriages.—Total number of marriages, 51. Color: White, 50; not stated, 1.

Births.—Total number of births, 192. Sex: Male, 92; female, 100. Color: White, 192.

Deaths.—Total number of deaths, 52. Sex: Male, 30; female, 22. Color: White, 44; not stated, 8.

1901.

Marriages.—Total number of marriages, 46. Color: White, 46.

Births.—Total number of births, 166. Sex: Male, 90; female, 76. Color: White, 166.

Deaths.—Total number of deaths, 33. Sex: Male, 21; female, 11; not stated, 1. Color: White, 32; not stated, 1.

DICKINSON COUNTY.

1900.

Marriages.—Total number of marriages, 118. Color: White, 116; colored, 2.

Births.—Total number of births, 392. Sex: Male, 198; female, 204. Color: White, 387; colored, 5.

Deaths.—Total number of deaths, 142. Sex: Male, 54; female, 87; not stated, 1. Color: White, 136; colored, 3; not stated, 3.

1901.

Marriages.—Total number of marriages, 138. Color: White, 135; colored, 1; not stated, 2.

Births.—Total number of births, 394. Sex: Male, 179; female, 215. Color: White, 389; colored, 4; not stated, 1.

Deaths.—Total number of deaths, 117. Sex: Male, 59; female, 58. Color: White, 116; colored, 1.

DONIPHAN COUNTY.

1900.

Marriages.—Total number of marriages, 82. Color: White, 81; not stated, 1.

Births.—Total number births, 276. Sex: Male, 125; female, 151. Color: White, 271; colored, 5.

Deaths.—Total number of deaths, 103. Sex: Male, 49; female, 48; not stated, 6. Color: White, 92; colored, 5; not stated, 6.

1901.

Marriages.—Total number of marriages, 74. Color: White, 68; colored, 6.

Births.—Total number of births, 292. Sex: Male, 142; female, 149; not stated, 1. Color: White, 278; colored, 12; not stated, 2.

Deaths.—Total number of deaths, 83. Sex: Male, 46; female, 37. Color: White, 75; colored, 8.

DOUGLAS COUNTY.

1900.

Marriages.—Total number of marriages, 107. Color: White, 103; colored, 4.

Births.—Total number of births, 288. Sex: Male, 144; female, 144. Color: White, 252; colored, 36.

Deaths.—Total number of deaths, 154. Sex: Male, 70; female, 80; not stated, 4. Color: White, 126; colored, 27; not stated, 1.

1901.

Marriages.—Total number of marriages, 142. Color: White, 136; colored, 6.

Births.—Total number of births, 299. Sex: Male, 151; female, 146; not stated, 2. Color: White, 265; colored, 34.

Deaths.—Total number of deaths, 141. Sex: Male, 89; female, 52. Color: White, 121; colored, 20.

EDWARDS COUNTY.

1900.

Marriages.—Total number of marriages, 31. Color: White, 31.

Births.—Total number of births, 101. Sex: Male, 41; female, 60. Color: White, 100; colored, 1.

Deaths.—Total number of deaths, 20. Sex: Male, 7; female, 13. Color: White, 20.

1901.

Marriages.—Total number of marriages, 23. Color: White, 22; not stated, 1.

Births.—Total number of births, 70. Sex: Male, 42; female, 27; not stated, 1. Color: White, 69; not stated, 1.

Deaths.—Total number of deaths, 26. Sex: Male, 10; female, 12; not stated, 4. Color: White, 22; colored, 1; not stated, 3.

ELK COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 78. Color: White, 74; not stated, 4.

Births.—Total number of births, 190. Sex: Male, 97; female, 92; not stated, 1. Color: White, 182; not stated, 8.

Deaths.—Total number of deaths, 73. Sex: Male, 37; female, 36. Color: White, 73.

ELLIS COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 42. Color: White, 39; not stated, 3.

Births.—Total number of births, 210. Sex: Male, 98; female, 112. Color: White, 208; colored, 1; not stated, 1.

Deaths.—Total number of deaths, 33. Sex: Male, 23; female, 10. Color: White, 30; not stated, 3.

ELLSWORTH COUNTY.

1900.

Marriages.—Total number of marriages, 72. Color: White, 68; colored, 1; not stated, 3.

Births.—Total number of births, 202. Sex: Male, 97; female, 105. Color: White, 199; colored, 3.

Deaths.—Total number of deaths, 63. Sex: Male, 29; female, 34. Color: White, 61; colored, 2.

1901.

Marriages.—Total number of marriages, 48. Color: White, 46; colored, 1; not stated, 1.

Births.—Total number of births, 196. Sex: Male, 101; female, 95. Color: White, 195; colored, 1.

Deaths.—Total number of deaths, 55. Sex: Male, 27; female, 28. Color: White, 55.

FINNEY COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 14. Color: White, 14.

Births.—Total number of births, 43. Sex: Male, 23; female, 20. Color: White, 42; colored, 1.

Deaths.—Total number of deaths, 21. Sex: Male, 12; female, 9. Color: White, 19; colored, 2.

FORD COUNTY.

1900.

Marriages.—Total number of marriages, 13. Color: White, 13.

Births.—Total number of births, 27. Sex: Male, 13; female, 13; not stated, 1. Color: White, 27.

Deaths.—Total number of deaths, 7. Sex: Male, 4; female, 3. Color: White, 7.

1901.

Marriages.—Total number of marriages, 21. Color: White, 21.

Births.—Total number of births, 62. Sex: Male, 33; female, 29. Color: White, 54; not stated, 8.

Deaths.—Total number of deaths, 24. Sex: Male, 12; female, 12. Color: White, 19; not stated, 5.

FRANKLIN COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 88. Color: White, 83; colored, 4; not stated, 1.

Births.—Total number of births, 267. Sex: Male, 125; female, 138; not stated, 4. Color: White, 259; colored, 5; not stated, 3.

Deaths.—Total number of deaths, 78. Sex: Male, 41; female, 36; not stated, 1. Color: White, 72; colored, 5; not stated, 1.

GEARY COUNTY.

1900.

Marriages.—Total number of marriages, 68. Color: White, 65; not stated, 3.

Births.—Total number of births, 154. Sex: Male, 82; female, 72. Color: White, 151; colored, 3.

Deaths.—Total number of deaths, 65. Sex: Male, 40; female, 25. Color: White, 63; colored, 2.

1901.

Marriages.—Total number of marriages, 45. Color: White, 36; colored, 1; not stated, 8.

Births.—Total number of births, 129. Sex: Male, 70; female, 59. Color: White, 108; colored, 6; not stated, 15.

Deaths.—Total number of deaths, 43. Sex: Male, 26; female, 17. Color: White, 34; colored, 2; not stated, 7.

GOVE COUNTY.

1900.

Marriages.—Total number of marriages, 7. Color: White, 7.

Births.—Total number of births, 53. Sex: Male, 25; female, 27; not stated, 1. Color: White, 52; colored, 1.

Deaths.—Total number of deaths, 12. Sex: Male, 5; female, 7. Color: White, 12.

1901.

Marriages.—Total number of marriages, 18. Color: White, 18.

Births.—Total number of births, 75. Sex: Male, 35; female, 40. Color: White, 74; colored, 1.

Deaths.—Total number of deaths, 20. Sex: Male, 12; female, 8. Color: White, 20.

GRAHAM COUNTY.

1900.

Marriages.—Total number of marriages, 42. Color: White, 29; colored, 13.

Births.—Total number of births, 106. Sex: Male, 48; female, 58. Color: White, 98; colored, 8.

Deaths.—Total number of deaths, 32. Sex: Male, 17; female, 15. Color: White, 28; colored, 4.

1901.

Marriages.—Total number of marriages, 42. Color: White, 35; colored, 7.

Births.—Total number of births, 135. Sex: Male, 69; female, 66. Color: White, 128; colored, 7.

Deaths.—Total number of deaths, 38. Sex: Male, 28; female, 9; not stated, 1. Color: White, 27; colored, 8; not stated, 3.

GRANT COUNTY.

1900.

Marriages.—Total number of marriages, 39. Color: White, 37; colored, 1; not stated, 1.

Births.—Total number of births, 146. Sex: Male, 78; female, 68. Color: White, 142; colored, 4.

Deaths.—Total number of deaths, 56. Sex: Male, 29; female, 26; not stated, 1. Color: White, 55; colored, 1.

1901.

(No report.)

GRAY COUNTY.

1900.

Marriages.—Total number of marriages, 6. Color: White, 6.

Births.—Total number of births, 26. Sex: Male, 9; female, 17. Color: White, 26.

Deaths.—Total number of deaths, 18. Sex: Male, 11; female, 7. Color: White, 18.

1901.

Marriages.—Total number of marriages, 18. Color: White, 17; colored, 1.

Births.—Total number of births, 21. Sex: Male, 10; female, 11. Color: White, 20; colored, 1.

Deaths.—Total number of deaths, 6. Sex: Male, 3; female, 3. Color: White, 2; not stated, 4.

GREELEY COUNTY.

1900 (incomplete).

Marriages.—Total number of marriages, 4. Color: White, 4.

Births.—Total number of births, 3. Sex: Male, 2; female, 1. Color: White, 3.

Deaths.—Total number of deaths, 1. Sex: Female, 1. Color: White, 1.

1901.

Marriages.—Total number of marriages, 2. Color: White, 2.

Births.—Total number of births, 10. Sex: Male, 6; female, 4. Color: White, 10.

Deaths.—Total number of deaths, 5. Sex: Male, 3; female, 2. Color: White, 5.

GREENWOOD COUNTY.

1900.

Marriages.—Total number of marriages, 68. Color: White, 67; colored, 1.

Births.—Total number of births, 227. Sex: Male, 121; female, 101; not stated, 5. Color: White, 226; colored, 1.

Deaths.—Total number of deaths, 76. Sex: Male, 37; female, 35; not stated, 4. Color: White, 72; not stated, 4.

1901.

Marriages.—Total number of marriages, 83. Color: White, 83.

Births.—Total number of births, 197. Sex: Male, 104; female, 83. Color: White, 193; colored, 1; not stated, 3.

Deaths.—Total number of deaths, 83. Sex: Male, 48; female, 32; not stated, 3. Color: White, 76; colored, 4; not stated, 3.

HAMILTON COUNTY.

(No reports.)

HARPER COUNTY.

1900.

Marriages.—Total number of marriages, 51. Color: White, 51.*Births.*—Total number of births, 136. Sex: Male, 71; female, 65. Color: White, 135; colored, 1.*Deaths.*—Total number of deaths, 62. Sex: Male, 29; female, 33. Color: White, 59; colored, 2; not stated, 1.

1901.

Marriages.—Total number of marriages, 66. Color: White, 63; colored, 2; not stated, 1.*Births.*—Total number of births, 197. Sex: Male, 91; female, 106. Color: White, 191; not stated, 6.*Deaths.*—Total number of deaths, 58. Sex: Male, 34; female, 24. Color: White, 55; colored, 1; not stated, 2.

HARVEY COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 96. Color: White, 95; not stated, 1.*Births.*—Total number of births, 326. Sex: Male, 160; female, 165; not stated, 1. Color: White, 311; colored, 4; not stated, 11.*Deaths.*—Total number of deaths, 104. Sex: Male, 53; female, 51. Color: White, 102; colored, 1; not stated, 1.

HASKELL COUNTY.

1900.

Marriages.—Total number of marriages, 4. Color: White, 4.*Births.*—Total number of births, 11. Sex: Male, 8; female, 2; not stated, 1. Color: White, 11.*Deaths.*—Total number of deaths, 2. Sex: Male, 1; female, 1. Color: White, 2.

1901.

Marriages.—Total number of marriages, 6. Color: White, 6.*Births.*—Total number of births, 5. Sex: Male, 4; female, 1. Color: White, 5.*Deaths.*—Total number of deaths, 2. Sex: Male, 2. Color: White, 2.

HODGEMAN COUNTY.

1900.

Marriages.—Total number of marriages, 26. Color: White, 23; colored, 2; not stated, 1.*Births.*—Total number of births, 67. Sex: Male, 39; female, 28. Color: White, 63; colored, 4.*Deaths.*—Total number of deaths, 20. Sex: Male, 9; female, 11. Color: White, 17; colored, 3.

1901.

Marriages.—Total number of marriages, 20. Color: White, 20.*Births.*—Total number of births, 44. Sex: Male, 17; female, 27. Color: White, 43; colored, 1.*Deaths.*—Total number of deaths, 10. Sex: Male, 7; female, 3. Color: White, 9; colored, 1.

JACKSON COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 86. Color: White, 81; colored, 2; not stated, 3.

Births.—Total number of births, 276. Sex: Male, 137; female, 137; not stated, 2. Color: White, 272; colored, 4.

Deaths.—Total number of deaths, 75. Sex: Male, 37; female, 38. Color: White, 73; colored, 1; not stated, 1.

JEFFERSON COUNTY.

1900.

Marriages.—Total number of marriages, 93. Color: White, 86; colored, 4; not stated, 3.

Births.—Total number of births, 241. Sex: Male, 121; female, 120. Color: White, 236; colored, 5.

Deaths.—Total number of deaths, 90. Sex: Male, 48; female, 41; not stated, 1. Color: White, 84; colored 4; not stated, 2.

1901.

Marriages.—Total number of marriages, 109. Color: White, 80; colored, 3; not stated, 26.

Births.—Total number of births, 250. Sex: Male, 133; female, 116; not stated, 1. Color: White, 239; colored, 7; not stated, 4.

Deaths.—Total number of deaths, 88. Sex: Male, 48; female, 40. Color: White, 81; colored, 4; not stated, 3.

JEWELL COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 75. Color: White, 64; not stated, 11.

Births.—Total number of births, 289. Sex: Male, 131; female, 158. Color: White, 274; not stated, 15.

Deaths.—Total number of deaths, 65. Sex: Male, 35; female, 30. Color: White, 65.

JOHNSON COUNTY.

1900.

Marriages.—Total number of marriages, 93. Color: White, 88; colored, 4; not stated, 1.

Births.—Total number of births, 228. Sex: Male, 101; female, 125; not stated, 2. Color: White, 224; colored, 4.

Deaths.—Total number of deaths, 99. Sex: Male, 37; female, 62. Color: White, 99.

1901.

Marriages.—Total number of marriages, 65. Color: White, 60; colored, 5.

Births.—Total number of births, 204. Sex: Male, 100; female, 99; not stated, 5. Color: White, 197; colored, 7.

Deaths.—Total number of deaths, 126. Sex: Male, 63; female, 62; not stated, 1. Color: White, 106; colored, 14; not stated, 6.

KEARNY COUNTY.

1900.

Marriages.—Total number of marriages, 1. Color: White, 1.

Births.—Total number of births, 15. Sex: Male, 6; female, 9. Color: White, 15.

Deaths.—Total number of deaths, 5. Sex: Male, 1; female, 4. Color: White, 5.

1901.

(No report.)

KINGMAN COUNTY.

1900.

Marriages.—Total number of marriages, 52. Color: White, 51; not stated, 1.

Births.—Total number of births, 81. Sex: Male, 40; female, 41. Color: White, 81.

Deaths.—Total number of deaths, 38. Sex: Male, 23; female, 15. Color: White, 38.

1901.

Marriages.—Total number of marriages, 21. Color: White, 19; not stated, 2.

Births.—Total number of births, 78. Sex: Male, 41; female, 37. Color: White, 78.

Deaths.—Total number of deaths, 23. Sex: Male, 11; female, 12. Color: White, 22; not stated, 1.

KIOWA COUNTY.

1900.

Marriages.—Total number of marriages, 23. Color: White, 23.

Births.—Total number of births, 44. Sex: Male, 18; female, 26. Color: White, 44.

Deaths.—Total number of deaths, 23. Sex: Male, 10; female, 13. Color: White, 22; colored, 1.

1901.

Marriages.—Total number of marriages, 24. Color: White, 24.

Births.—Total number of births, 58. Sex: Male, 27; female, 31. Color: White, 58.

Deaths.—Total number of deaths, 33. Sex: Male, 16; female, 17. Color: White, 33.

LABETTE COUNTY.

1900 (incomplete).

Marriages.—Total number of marriages, 128. Color: White, 127; colored, 1.

Births.—Total number of births, 257. Sex: Male, 120; female, 135; not stated, 2. Color: White, 257.

Deaths.—Total number of deaths, 96. Sex: Male, 42; female, 46; not stated, 8. Color: White, 87; not stated, 9.

1901.

Marriages.—Total number of marriages, 101. Color: White, 100; not stated, 1.

Births.—Total number of births, 292. Sex: Male, 148; female, 144. Color: White, 291; colored, 1.

Deaths.—Total number of deaths, 121. Sex: Male, 64; female, 57. Color: White, 114; colored, 7.

LANE COUNTY.

1900.

Marriages.—Total number of marriages, 10. Color: White, 9; not stated, 1.

Births.—Total number of births, 18. Sex: Male, 12; female, 6. Color: White, 18.

Deaths.—Total number of deaths, 5. Sex: Male, 4; not stated, 1. Color: White, 4; not stated, 1.

1901.

Marriages.—Total number of marriages, 7. Color: White, 7.

Births.—Total number of births, 39. Sex: Male, 17; female, 12. Color: White, 39.

Deaths.—Total number of deaths, 7. Sex: Male, 3; female, 4. Color: White, 7.

LEAVENWORTH COUNTY.

1900.

Marriages.—Total number of marriages, 193. Color: White, 174; colored, 17; not stated, 2.

Births.—Total number of births, 430. Sex: Male, 245; female, 182; not stated, 3. Color: White, 401; colored, 29.

Deaths.—Total number of deaths, 206. Sex: Male, 133; female, 73. Color: White, 187; colored, 19.

1901.

Marriages.—Total number of marriages, 176. Color: White, 156; colored, 13; not stated, 7.

Births.—Total number of births, 409. Sex: Male, 200; female, 209. Color: White, 372; colored, 37.

Deaths.—Total number of deaths, 207. Sex: Male, 117; female, 90. Color: White, 175; colored, 32.

LINCOLN COUNTY.

1900.

Marriages.—Total number of marriages, 57. Color: White, 57.

Births.—Total number of births, 218. Sex: Male, 100; female, 118. Color: White, 215; colored, 3.

Deaths.—Total number of deaths, 71. Sex: Male, 45; female, 26; not stated, 1. Color: White, 68; colored, 2; not stated, 1.

1901.

Marriages.—Total number of marriages, 66. Color: White, 66.

Births.—Total number of births, 237. Sex: Male, 131; female, 106. Color: White, 233; colored, 1; not stated, 3.

Deaths.—Total number of deaths, 38. Sex: Male, 22; female, 16. Color: White, 37; not stated, 1.

LINN COUNTY.

1900.

Marriages.—Total number of marriages, 98. Color: White, 96; colored, 2.

Births.—Total number of births, 257. Sex: Male, 123; female, 134. Color: White, 252; colored, 5.

Deaths.—Total number of deaths, 102; Sex: Male, 57; female, 42; not stated, 3. Color: White, 100; not stated, 2.

LINN COUNTY.

1901.

Marriages.—Total number of marriages, 99. Color: White, 92; colored, 3; not stated, 4.

Births.—Total number of births, 290. Sex: Male, 152; female, 137; not stated, 1. Color: White, 270; colored, 9; not stated, 11.

Deaths.—Total number of deaths, 115. Sex: Male, 67; female, 47; not stated, 1. Color: White, 101; colored, 7; not stated, 7.

LOGAN COUNTY.

1900.

Marriages.—Total number of marriages, 15. Color: White, 15.

Births.—Total number of births, 39. Sex: Male, 21; female, 18. Color: White, 39.

Deaths.—Total number of deaths, 15. Sex: Male, 5; female, 11. Color: White, 15.

1901.

Marriages.—Total number of marriages, 13. Color: White, 13.

Births.—Total number of births, 52. Sex: Male, 23; female, 29. Color: White, 52.

Deaths.—Total number of deaths, 7. Sex: Male, 3; female, 4. Color: White, 7.

LYON COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 129. Color: White, 126; colored, 1; not stated, 2.

Births.—Total number of births, 363. Sex: Male, 195; female, 166; not stated, 2. Color: White, 346; colored, 15; not stated, 2.

Deaths.—Total number of deaths, 148. Sex: Male, 80; female, 67; not stated, 1. Color: White, 134; colored, 9; not stated, 5.

MARION COUNTY.

1900.

Marriages.—Total number of marriages, 119. Color: White, 113; colored, 1; not stated, 5.

Births.—Total number of births, 363. Sex: Male, 193; female, 169; not stated, 1. Color: White, 362; colored, 1.

Deaths.—Total number of deaths, 111. Sex: Male, 42; female, 66; not stated, 3. Color: White, 107; colored, 3; not stated, 1.

1901.

Marriages.—Total number of marriages, 129. Color: White, 121; colored, 1; not stated, 7.

Births.—Total number of births, 325. Sex: Male, 153; female, 161; not stated, 11. Color: White, 324; not stated, 1.

Deaths.—Total number of deaths, 103. Sex: Male, 46; female, 54; not stated, 3. Color: White, 99; colored, 1; not stated, 3.

MARSHALL COUNTY.

1900.

Marriages.—Total number of marriages, 110. Color: White, 108; not stated, 2.

Births.—Total number of births, 304. Sex: Male, 163; female, 137; not stated, 4. Color: White, 303; colored, 1.

Deaths.—Total number of deaths, 121. Sex: Male, 57; female, 63; not stated, 1. Color: White, 118; colored, 3.

1901.

Marriages.—Total number of marriages, 197. Color: White, 195; colored, 2.

Births.—Total number of births, 123. Sex: Male, 66; female, 57. Color: White, 121; colored, 2.

Deaths.—Total number of deaths, 161. Sex: Male, 85; female, 76. Color: White, 156; colored, 5.

M'PHERSON COUNTY.

1900.

Marriages.—Total number of marriages, 109. Color: White, 107; not stated, 2.

Births.—Total number of births, 415. Sex: Male, 224; female, 191. Color: White, 415.

Deaths.—Total number of deaths, 110. Sex: Male, 58; female, 52. Color: White, 110.

1901.

Marriages.—Total number of marriages, 92. Color: White, 86; not stated, 6.

Births.—Total number of births, 361. Sex: Male, 175; female, 186. Color: White, 321; not stated, 40.

Deaths.—Total number of deaths, 106. Sex: Male, 57; female, 44; not stated, 5. Color: White, 100; not stated, 6.

MEADE COUNTY.

1900.

Marriages.—Total number of marriages, 24. Color: White, 24.

Births.—Total number of births, 31. Sex: Male, 16; female, 15. Color: White, 31.

Deaths.—Total number of deaths, 12. Sex: Male, 10; female, 2. Color: White, 12.

1901.

Marriages.—Total number of marriages, 13. Color: White, 13.

Births.—Total number of births, 26. Sex: Male, 10; female, 16. Color: White, 26.

Deaths.—Total number of deaths, 9. Sex: Male, 6; female, 3. Color: White, 9.

MIAMI COUNTY.

1900.

Marriages.—Total number of marriages, 118. Color: White, 111; colored, 1; not stated, 6.

Births.—Total number of births, 289. Sex: Male, 152; female, 137. Color: White, 279; colored, 10.

Deaths.—Total number of deaths, 141. Sex: Male, 75; female, 64; not stated, 2. Color: White, 131; colored, 10.

MIAMI COUNTY.

1901.

Marriages.—Total number of marriages, 80. Color: White, 66; colored, 8; not stated, 6.

Births.—Total number of births, 250. Sex: Male, 125; female, 117; not stated, 8. Color: White, 241; colored, 5; not stated, 4.

Deaths.—Total number of deaths, 106. Sex: Male, 61; female, 45. Color: White, 93; colored, 8; not stated, 5.

MITCHELL COUNTY.

1900.

Marriages.—Total number of marriages, 46. Color: White, 41; not stated, 5.

Births.—Total number of births, 152. Sex: Male, 75; female, 75; not stated, 2. Color: White, 146; colored, 6.

Deaths.—Total number of deaths, 44. Sex: Male, 28; female, 16. Color: White, 42; not stated, 2.

1901.

Marriages.—Total number of marriages, 95. Color: White, 93; not stated, 2.

Births.—Total number of births, 224. Sex: Male, 140; female, 84. Color: White, 220; not stated, 4.

Deaths.—Total number of deaths, 65. Sex: Male, 37; female, 27; not stated, 1. Color: White, 65.

MONTGOMERY COUNTY.

1900.

Marriages.—Total number of marriages, 97. Color: White, 81; colored, 2; not stated, 14.

Births.—Total number of births, 244. Sex: Male, 97; female, 99; not stated, 48. Color: White, 223; colored, 21.

Deaths.—Total number of deaths, 84. Sex: Male, 50; female, 34. Color: White, 75; colored, 9.

1901.

Marriages.—Total number of marriages, 155. Color: White, 140; colored, 3; not stated, 12.

Births.—Total number of births, 340. Sex: Male, 180; female, 149; not stated, 11. Color: White, 312; colored, 13; not stated, 15.

Deaths.—Total number of deaths, 116. Sex: Male, 50; female, 64; not stated, 2. Color: White, 103; colored, 8; not stated, 5.

MORRIS COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 63. Color: White, 34; colored, 1; not stated, 28.

Births.—Total number of births, 154. Sex: Male, 83; female, 71. Color: White, 149; colored, 4; not stated, 1.

Deaths.—Total number of deaths, 41. Sex: Male, 23; female, 18. Color: White, 37; colored, 4.

MORTON COUNTY.

(No reports.)

NEMAH COUNTY.

1900.

Marriages.—Total number of marriages, 96. Color: White, 93; colored, 2; not stated, 1.

Births.—Total number of births, 271. Sex: Male, 121; female, 148; not stated, 2. Color: White, 271.

Deaths.—Total number of deaths, 97. Sex: Male, 42; female, 51; not stated, 4. Color: White, 92; not stated, 5.

1901.

Marriages.—Total number of marriages, 75. Color: White, 74; not stated, 1.

Births.—Total number of births, 309. Sex: Male, 144; female, 165. Color: White, 307; colored, 1; not stated, 1.

Deaths.—Total number of deaths, 90. Sex: Male, 42; female, 44; not stated, 4. Color: White, 74; not stated, 16.

NEOSHO COUNTY.

1900.

Marriages.—Total number of marriages, 85. Color: White, 81; not stated, 4.

Births.—Total number of births, 200. Sex: Male, 92; female, 106; not stated, 2. Color: White, 197; colored, 3.

Deaths.—Total number of deaths, 100. Sex: Male, 45; female, 55. Color: White, 96; colored, 1; not stated, 3.

1901.

Marriages.—Total number of marriages, 109. Color: White, 96; not stated, 13.

Births.—Total number of births, 275. Sex: Male, 125; female, 150. Color: White, 255; colored, 5; not stated, 15.

Deaths.—Total number of deaths, 61. Sex: Male, 28; female, 33. Color: White, 61.

NESS COUNTY.

1900.

Marriages.—Total number of marriages, 33. Color: White, 31; not stated, 2.

Births.—Total number of births, 101. Sex: Male, 58; female, 42; not stated, 1. Color: White, 101.

Deaths.—Total number of deaths, 23. Sex: Male, 12; female, 10; not stated, 1. Color: White, 22; not stated, 1.

1901.

Marriages.—Total number of marriages, 21. Color: White, 21.

Births.—Total number of births, 85. Sex: Male, 43; female, 42. Color: White, 85.

Deaths.—Total number of deaths, 22. Sex: Male, 10; female, 12. Color: White, 16; not stated, 6.

NORTON COUNTY.

1900.

Marriages.—Total number of marriages, 35. Color: White, 32; not stated, 3.

Births.—Total number of births, 146. Sex: Male, 65; female, 81. Color: White, 144; colored, 2.

Deaths.—Total number of deaths, 37. Sex: Male, 22; female, 15. Color: White, 36; not stated, 1.

NORTON COUNTY.

1901.

Marriages.—Total number of marriages, 57. Color: White, 57.

Births.—Total number of births, 199. Sex: Male, 92; female, 106; not stated, 1. Color: White, 191; not stated, 8.

Deaths.—Total number of deaths, 43. Sex: Male, 21; female, 22. Color: White, 43.

OSAGE COUNTY.

1900.

Marriages.—Total number of marriages, 96. Color: White, 86; colored, 3; not stated, 7.

Births.—Total number of births, 337. Sex: Male, 172; female, 160; not stated, 5. Color: White, 332, colored, 5.

Deaths.—Total number of deaths, 116. Sex: Male, 60; female, 56. Color: White, 111; colored, 3; not stated, 2.

1901.

Marriages.—Total number of marriages, 131. Color: White, 122; Colored, 3; not stated, 6.

Births.—Total number of births, 358. Sex: Male, 169; female, 189. Color: White, 352; colored, 6.

Deaths.—Total number of deaths, 122. Sex: Male, 69; female, 52; not stated, 1. Color: White, 116; colored, 5; not stated, 1.

OSBORNE COUNTY.

1900.

Marriages.—Total number of marriages, 98. Color: White, 97; not stated, 1.

Births.—Total number of births, 234. Sex: Male, 102; female, 132. Color: White, 234.

Deaths.—Total number of deaths, 73. Sex: Male, 28; female, 45. Color: White, 72; colored, 1.

1901.

(No report.)

OTTAWA COUNTY.

1900.

Marriages.—Total number of marriages, 85. Color: White, 69; not stated: 16.

Births.—Total number of births, 234. Sex: Male, 119; female, 115. Color: White, 231; colored, 3.

Deaths.—Total number of deaths, 77. Sex: Male, 43; female, 34. Color: White, 76; not stated, 1.

1901.

Marriages.—Total number of marriages, 83. Color: White, 82; not stated, 1.

Births.—Total number of births, 189. Sex: Male, 97; female, 89; not stated, 3. Color: White, 186; colored, 1; not stated, 2.

Deaths.—Total number of deaths, 74. Sex: Male, 31; female, 42; not stated, 1. Color: White, 68; colored, 3; not stated, 3.

PAWNEE COUNTY.

1900.

Marriages.—Total number of marriages, 39. Color: White, 39.

Births.—Total number of births, 82. Sex: Male, 36; female, 46. Color: White, 80; colored, 2.

Deaths.—Total number of deaths, 31. Sex: Male, 14; female, 17. Color: White, 29; colored, 2.

1901.

Marriages.—Total number of marriages, 55. Color: White, 55.

Births.—Total number of births, 112. Sex: Male, 55; female, 57. Color: White, 108; colored, 4.

Deaths.—Total number of deaths, 44. Sex: Male, 17; female, 27. Color: White, 42; colored, 2.

PHILLIPS COUNTY.

1900.

Marriages.—Total number of marriages, 55. Color: White, 43; colored, 2; not stated, 10.

Births.—Total number of births, 212. Sex: Male, 115; female, 97. Color: White, 211; colored, 1.

Deaths.—Total number of deaths, 45. Sex: Male, 22; female, 23. Color: White, 40; colored, 5.

1901.

Marriages.—Total number of marriages, 29. Color: White, 29.

Births.—Total number of births, 163. Sex: Male, 77; female, 86. Color: White, 155; colored, 3; not stated, 5.

Deaths.—Total number of deaths, 23. Sex: Male, 11; female, 12. Color: White, 23.

POTTAWATOMIE COUNTY.

1900.

Marriages.—Total number of marriages, 78. Color: White, 76; colored, 2.

Births.—Total number of births, 280. Sex: Male, 138; female, 140; not stated, 2. Color: White, 278; colored, 2.

Deaths.—Total number of deaths, 92. Sex: Male, 50; female, 41; not stated, 1. Color: White, 91; colored, 1.

1901.

Marriages.—Total number of marriages, 90. Color: White, 84; colored, 2; not stated, 4.

Births.—Total number of births, 329. Sex: Male, 177; female, 147; not stated, 5. Color: White, 319; colored, 3; not stated, 7.

Deaths.—Total number of deaths, 83. Sex: Male, 43; female, 40. Color: White, 81; colored, 1; not stated, 1.

PRATT COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 50. Color: White, 49; not stated, 1.

Births.—Total number of births, 115. Sex: Male, 55; female, 60. Color: White, 114; colored, 1.

Deaths.—Total number of deaths, 43. Sex: Male, 27; female, 15; not stated, 1. Color: White, 40; colored, 3.

RENO COUNTY.

1900.

Marriages.—Total number of marriages, 164. Color: White, 128; colored, 1; not stated, 35.

Births.—Total number of births, 505. Sex: Male, 257; female, 245; not stated, 3. Color: White, 493; colored, 12.

Deaths.—Total number of deaths, 159. Sex: Male, 84; female, 74; not stated, 1. Color: White, 158; colored, 1.

1901.

Marriages.—Total number of marriages, 187. Color: White, 173; colored, 3; not stated, 11.

Births.—Total number of births, 491. Sex: Male, 227; female, 263; not stated, 1. Color: White, 478; colored, 7; not stated, 6.

Deaths.—Total number of deaths, 140. Sex: Male, 77; female, 62; not stated, 1. Color: White, 117; colored, 4; not stated, 19.

RAWLINS COUNTY.

1900.

Marriages.—Total number of marriages, 23. Color: White, 18; not stated, 5.

Births.—Total number of births, 102. Sex: Male, 55; female, 47. Color: White, 102.

Deaths.—Total number of deaths, 21. Sex: Male, 8; female, 13. Color: White, 17; not stated, 4.

1901.

(No report.)

REPUBLIC COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 72. Color: White, 65; not stated, 7.

Births.—Total number of births, 262. Sex: Male, 120; female, 140; not stated, 2. Color: White, 254; not stated, 8.

Deaths.—Total number of deaths, 64. Sex: Male, 31; female, 33. Color: White, 62; not stated, 2.

RICE COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 65. Color: White, 65.

Births.—Total number of births, 219. Sex: Male, 122; female, 96; not stated, 1. Color: White, 217; colored, 1; not stated, 1.

Deaths.—Total number of deaths, 98. Sex: Male, 46; female, 43; not stated, 9. Color: White, 95; colored, 2; not stated, 3.

RILEY COUNTY.

1900.

Marriages.—Total number of marriages, 60. Color: White, 57; colored, 1; not stated, 2.

Births.—Total number of births, 249. Sex: Male, 118; female, 118; not stated, 13. Color: White, 249.

Deaths.—Total number of deaths, 58. Sex: Male, 40; female, 27; not stated, 1. Color: White, 54; colored, 4.

RILEY COUNTY.

1901.

Marriages.—Total number of marriages, 73. Color: White, 71; colored, 1; not stated, 1.

Births.—Total number of births, 231. Sex: Male, 118; female, 111; not stated, 2. Color: White, 226; colored, 3; not stated, 2.

Deaths.—Total number of deaths, 84. Sex: Male, 47; female, 37. Color: White, 78; colored, 6.

ROOKS COUNTY.

1900.

Marriages.—Total number of marriages, 28. Color: White, 28.

Births.—Total number of births, 104. Sex: Male, 58; female, 46. Color: White, 104.

Deaths.—Total number of deaths, 25. Sex: Male, 15; female, 10. Color: White, 25.

1901.

Marriages.—Total number of marriages, 59. Color: White, 59.

Births.—Total number of births, 126. Sex: Male, 67; female, 57; not stated, 2. Color: White, 126.

Deaths.—Total number of deaths, 87. Sex: Male, 43; female, 37; not stated, 7. Color: White, 83; colored, 4.

RUSH COUNTY.

1900.

Marriages.—Total number of marriages, 50. Color: White, 49; colored, 1.

Births.—Total number of births, 187. Sex: Male, 108; female, 79. Color: White, 187.

Deaths.—Total number of deaths, 64. Sex: Male, 31; female, 33. Color: White, 64.

1901.

Marriages.—Total number of marriages, 38. Color: White, 33; not stated, 5.

Births.—Total number of births, 180. Sex: Male, 88; female, 92. Color: White, 175; colored, 2; not stated, 3.

Deaths.—Total number of deaths, 41. Sex: Male, 23; female, 18. Color: White, 40; colored, 1.

RUSSELL COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 34. Color: White, 33; not stated, 1.

Births.—Total number of births, 171. Sex: Male, 93; female, 75; not stated, 3. Color: White, 166; not stated, 5.

Deaths.—Total number of deaths, 25. Sex: Male, 15; female, 10. Color: White, 25.

SALINE COUNTY.

1900.

Marriages.—Total number of marriages, 91. Color: White, 87; colored, 3; not stated, 1.

Births.—Total number of births, 246. Sex: Male, 129; female, 117. Color: White, 241; colored, 5.

Deaths.—Total number of deaths, 74. Sex: Male, 42; female, 31; not stated, 1. Color: White, 71; colored, 2; not stated, 1.

SALINE COUNTY.

1901.

Marriages.—Total number of marriages, 115. Color: White, 109; colored, 2; not stated, 4.

Births.—Total number of births, 245. Sex: Male, 120; female, 125. Color: White, 242; colored, 3.

Deaths.—Total number of deaths, 92. Sex: Male, 46; female, 46. Color: White, 89; colored, 2; not stated, 1.

SCOTT COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 13. Color: White, 13.

Births.—Total number of births, 19. Sex: Male, 3; female, 16. Color: White, 18; not stated, 1.

Deaths.—Total number of deaths, 6. Sex: Male, 3; female, 3. Color: White, 6.

SEDGWICK COUNTY.

1900.

Marriages.—Total number of marriages, 237. Color: White, 223; colored, 13; not stated, 1.

Births.—Total number of births, 619. Sex: Male, 315; female, 304. Color: White, 602; colored, 17.

Deaths.—Total number of deaths, 227. Sex: Male, 95; female, 132. Color: White, 210; colored, 17.

1901.

Marriages.—Total number of marriages, 371. Color: White, 368; colored, 3.

Births.—Total number of births, 868. Sex: Male, 450; female, 405; not stated, 13. Color: White, 847; colored, 20; not stated, 1.

Deaths.—Total number of deaths, 350. Sex: Male, 183; female, 166; not stated, 1. Color: White, 335; colored, 15.

SEWARD COUNTY.

1900.

Marriages.—Total number of marriages, 6. Color: White, 5; colored, 1.

Births.—Total number of births, 14. Sex: Male, 8; female, 6. Color: White, 14.

Deaths.—Total number of deaths, 5. Sex: Male, 4; female, 1. Color: White, 5.

1901.

(No report.)

SHAWNEE COUNTY.

1900.

Marriages.—Total number of marriages, 333. Color: White, 301; colored, 23; not stated, 9.

Births.—Total number of births, 764. Sex: Male, 409; female, 355. Color: White, 704; colored, 60.

Deaths.—Total number of deaths, 264. Sex: Male, 132; female, 132. Color: White, 228; colored, 36.

SHAWNEE COUNTY.

1901.

Marriages.—Total number of marriages, 267. Color: White, 231; colored, 35; not stated, 1.

Births.—Total number of births, 684. Sex: Male, 326; female, 356; not stated, 2. Color: White, 599; colored, 65; not stated, 20.

Deaths.—Total number of deaths, 253. Sex: Male, 148; female, 105. Color: White, 212; colored, 39; not stated, 3.

SHERIDAN COUNTY.

1900.

Marriages.—Total number of marriages, 22. Color: White, 22.

Births.—Total number of births, 110. Sex: Male, 52; female, 58. Color: White, 110.

Deaths.—Total number of deaths, 30. Sex: Male, 14; female, 16. Color: White, 30.

1901.

(No report.)

SHERMAN COUNTY.

1900.

Marriages.—Total number of marriages, 19. Color: White, 19.

Births.—Total number of births, 53. Sex: Male, 32; female, 21. Color: White, 53.

Deaths.—Total number of deaths, 24. Sex: Male, 9; female, 15. Color: White, 24.

1901.

Marriages.—Total number of marriages, 35. Color: White, 35.

Births.—Total number of births, 67. Sex: Male, 32; female, 35. Color: White, 67.

Deaths.—Total number of deaths, 16. Sex: Male, 12; female, 4. Color: White, 16.

SMITH COUNTY.

1900.

Marriages.—Total number of marriages, 114. Color: White, 112; not stated, 2.

Births.—Total number of births, 339. Sex: Male, 175; female, 164. Color: White, 339.

Deaths.—Total number of deaths, 101. Sex: Male, 59; female, 41; not stated, 1. Color: White, 93; not stated, 8.

1901.

Marriages.—Total number of marriages, 139. Color: White, 119; not stated, 20.

Births.—Total number of births, 302. Sex: Male, 172; female, 130. Color: White, 273; not stated, 29.

Deaths.—Total number of deaths, 60. Sex: Male, 34; female, 26. Color: White, 53; not stated, 7.

STAFFORD COUNTY.

1900.

Marriages.—Total number of marriages, 36. Color: White, 36.

Births.—Total number of births, 150. Sex: Male, 78; female, 82. Color: White, 149; colored, 1.

Deaths.—Total number of deaths, 43. Sex: Male, 17; female, 25; not stated, 1. Color: White, 41; colored, 2.

1901.

Marriages.—Total number of marriages, 44. Color: White, 44.

Births.—Total number of births, 209. Sex: Male, 99; female, 109; not stated, 1. Color: White, 206; colored, 2; not stated, 1.

Deaths.—Total number of deaths, 38. Sex: Male, 23; female, 15. Color: White, 34; colored, 1; not stated, 3.

STANTON COUNTY.

1900.

Marriages.—Total number of marriages, 2. Color: White, 2.

Births.—Total number of births, 8. Sex: Male, 2; female, 6. Color: White, 8.

1901.

Marriages.—Total number of marriages, 1. Color: White, 1.

Births.—Total number of births, 10. Sex: Male, 6; female, 4. Color: White, 10.

Deaths.—Total number of deaths, 3. Sex: Male, 2; female, 1. Color: White, 3.

STEVENS COUNTY.

1900.

Marriages.—Total number of marriages, 2. Color: White, 2.

Births.—Total number of births, 14. Sex: Male, 7; female, 7. Color: White, 14.

Deaths.—Total number of deaths, 3. Sex: Male, 2; female, 1. Color: White, 3.

1901.

Marriages.—Total number of marriages, 1. Color: White, 1.

Births.—Total number of births, 11. Sex: Male, 8; female, 3. Color: White, 11.

Deaths.—Total number of deaths, 4. Sex: Male, 1; female, 3. Color: White, 4.

SUMNER COUNTY.

1900.

Marriages.—Total number of marriages, 128. Color: White, 127; not stated, 1.

Births.—Total number of births, 331. Sex: Male, 164; female, 166; not stated, 1. Color: White, 331.

Deaths.—Total number of deaths, 154. Sex: Male, 80; female, 74. Color: White, 152; colored, 2.

1901.

Marriages.—Total number of marriages, 198. Color: White, 195; colored, 1; not stated, 2.

Births.—Total number of births, 322. Sex: Male, 169; female, 152; not stated, 1. Color: White, 321; colored, 1.

Deaths.—Total number of deaths, 172. Sex: Male, 91; female, 75; not stated, 6. Color: White, 164; colored, 3; not stated, 5.

THOMAS COUNTY.

1900.

Marriages.—Total number of marriages, 18. Color: White, 17; not stated, 1.

Births.—Total number of births, 74. Sex: Male, 41; female, 33. Color: White, 74.

Deaths.—Total number of deaths, 14. Sex: Male, 8; female, 6. Color: White, 14.

1901.

Marriages.—Total number of marriages, 25. *Color: White, 25.

Births.—Total number of births, 64. Sex: Male, 29; female, 35. Color: White, 64.

Deaths.—Total number of deaths, 21. Sex: Male, 9; female, 11; not stated, 1. Color: White, 20; not stated, 1.

TREGO COUNTY.

1900.

Marriages.—Total number of marriages, 13. Color: White, 13.

Births.—Total number of births, 59. Sex: Male, 29; female, 30. Color: White, 59.

Deaths.—Total number of deaths, 16. Sex: Male, 6; female, 5; not stated, 5. Color: White, 11; not stated, 5.

1901.

Marriages.—Total number of marriages, 16. Color: White, 16.

Births.—Total number of births, 36. Sex: Male, 12; female, 24. Color: White, 36.

Deaths.—Total number of deaths, 11. Sex: Male, 4; female, 7. Color: White, 11.

WABAUNSEE COUNTY.

1900.

Marriages.—Total number of marriages, 79. Color: White, 72; colored, 1; not stated, 6.

Births.—Total number of births, 235. Sex: Male, 113; female 122. Color: White, 224; colored, 11.

Deaths.—Total number of deaths, 76. Sex: Male, 41; female, 35. Color: White, 70; colored, 6.

1901.

Marriages.—Total number of marriages, 65. Color: White, 64; colored, 1.

Births.—Total number of births, 222. Sex: Male, 119; female, 102; not stated, 1. Color: White, 210; colored, 10; not stated, 2.

Deaths.—Total number of deaths, 69. Sex: Male, 33; female, 33; not stated, 3. Color: White, 62; colored, 4; not stated, 3.

WALLACE COUNTY.

1900.

Marriages.—Total number of marriages, 3.

Births.—Total number of births, 30.

Deaths.—Total number of deaths, 14.

1901.

Marriages.—Total number of marriages, 7. Color: White, 7.

Births.—Total number of births, 15. Sex: Male, 8; female, 7. Color: White, 15.

Deaths.—Total number of deaths, 6. Sex: Male, 2; female, 4. Color: White, 6.

WASHINGTON COUNTY.

1900.

Marriages.—Total number of marriages, 110. Color: White, 105; not stated, 5.

Births.—Total number of births, 295. Sex: Male, 156; female, 139. Color: White, 295.

Deaths.—Total number of deaths, 85. Sex: Male, 43; female, 42. Color: White, 79; not stated, 6.

1901.

Marriages.—Total number of marriages, 93. Color: White, 93.

Births.—Total number of births, 307. Sex: Male, 157; female, 150. Color: White, 307.

Deaths.—Total number of deaths, 109. Sex: Male, 64; female, 45. Color: White, 108; not stated, 1.

WICHITA COUNTY.

1900.

Marriages.—Total number of marriages, 5. Color: White, 5.

Births.—Total number of births, 30. Sex: Male, 17; female, 13. Color: White, 30.

Deaths.—Total number of deaths, 6. Sex: male, 3; female, 3. Color: White, 6.

1901.

Marriages.—Total number of marriages, 8. Color: White, 8.

Births.—Total number of births, 30. Sex: Male, 22; female, 8. Color: White, 30.

Deaths.—Total number of deaths, 6. Sex: Male, 5; female, 1. Color: White, 6.

WILSON COUNTY.

1900.

(No report.)

1901.

Marriages.—Total number of marriages, 86. Color: White, 84; not stated, 2.

Births.—Total number of births, 291. Sex: Male, 154; female, 131; not stated, 6. Color: White, 290; not stated, 1.

Deaths.—Total number of deaths, 49. Sex: Male, 28; female, 20; not stated, 1. Color: White, 48; not stated, 1.

WOODSON COUNTY.

1900.

Marriages.—Total number of marriages, 68. Color: White, 67; not stated, 1.

Births.—Total number of births, 133. Sex: Male, 67; female, 66. Color: White, 133.

Deaths.—Total number of deaths, 50. Sex: Male, 32; female, 18. Color: White, 50.

1901.

Marriages.—Total number of marriages, 48. Color: White, 46; not stated, 2.

Births.—Total number of births, 89. Sex: Male, 36; female, 52; not stated, 1. Color: White, 89.

Deaths.—Total number of deaths, 36. Sex: Male, 17; female, 19. Color: White, 36.

WYANDOTTE COUNTY.

(No reports.)

Gove.....	2,587	J. E. Vanderpool, M. D.	1	.....	3	4	10	14	30	6	40 00	200 00
Graham.....	5,296	W. E. Mowery, M. D.	1	6	.....	7	29	36	46	68	50 00	75 00
*Grant.....	1,985	C. D. Hickey	.....	.....	.....	.....	.....	.....	.....	.....	25 00	.....
Gray.....	1,231	G. W. Hollenbeck, M. D.	3	.....	.....	5	9	16	5	.....	500 00	.....
Grealey.....	621	A. A. Allen, M. D.	.....	.....	.....	.....	.....	.....	4	.....	.....	.....
Greenwood.....	16,127	H. W. Manning, M. D.	2	8	.....	.....	.....	88	148	121	Rees.	5,000 00
Hamilton.....	1,510	C. F. Harrison, M. D.	.....	.....	.....	1	6	7	20	11	25 00	5,600 00
*Harper.....	10,398	C. E. Reesler, M. D.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Harvey.....	17,814	James McKee, M. D.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Haskell.....	463	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hodgeman.....	2,205	Wm. Sterrett, M. D.	1	.....	.....	2	7	9	30	12	200 00	.....
Jackson.....	18,085	M. S. McGrew, M. D.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson.....	21,187	G. W. England, M. D.	2	12	.....	20	82	102	157	.....	100 00	1,268 00
Jewell.....	17,748	E. L. R. Mills, M. D.	1	4	.....	6	58	69	119	179	100 00	100 00
Johnson.....	17,167	Ernest P. Richards, M. D.	.....	.....	.....	2	210	214	149	148	60 00	1,200 00
Kearny.....	1,080	G. C. W. Richards, M. D.	1	1	.....	2	4	3	7	15	4	40 00
Kingman.....	10,400	W. E. Buck, M. D.	.....	.....	.....	.....	.....	50	51	.....	60 00	40 00
Kiowa.....	2,412	J. A. Gardner, M. D.	.....	.....	.....	2	3	9	12	45	12	44 00
Labette.....	28,588	T. A. Talson, M. D.	.....	.....	.....	.....	.....	77	182	287	100 00	200 00
Lane.....	1,608	F. L. Rownd, M. D.	2	.....	.....	2	15	17	22	.....	25 00	.....
Leavenworth.....	40,681	S. McKee, M. D.	36	6	.....	12	55	283	318	391	441	566 27
Lincoln.....	9,990	Alfred Rulmer, M. D.	.....	.....	.....	2	8	61	69	105	38	80 00
Linn.....	13,272	J. G. Vortman, M. D.	2	.....	.....	3	6	67	31	69	100 00	938 43
Logan.....	2,013	H. A. Stroup, M. D.	.....	.....	.....	.....	3	3	5	10	14	40 00
Lyon.....	23,632	J. F. Morrison, M. D.	4	23	.....	1	32	225	257	311	250	75 00
Marion.....	20,764	G. P. Marner, M. D.	.....	.....	.....	2	10	57	67	193	.....	.....
Marshall.....	23,735	E. L. Wilson, M. D.	7	9	.....	3	31	151	182	113	183	Rees.
McPherson.....	21,434	C. D. Weaver, M. D.	.....	.....	.....	2	1	69	76	135	450 00	400 00
Meade.....	1,526	W. F. Fee, M. D.	1	.....	.....	3	3	10	23	24	22	100 00
Miami.....	20,466	D. W. Hays, M. D.	1	3	.....	1	6	27	33	63	145	60 00
Mitchell.....	13,825	Mary J. Lobdell, M. D.	.....	.....	.....	7	25	86	113	221	185	100 00
*Montgomery.....	29,709	E. F. Mastermann, M. D.	4	.....	.....	8	16	58	102	329	200 00	150 00
Morris.....	11,963	W. E. Crawford, M. D.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Norton.....	21,270	T. Ormsbee, M. D.	3	.....	.....	1	4	.....	.....	3	1	200 00
Nemaha.....	20,200	C. M. Fisher, M. D.	.....	.....	.....	2	6	23	29	47	174	50 00
Neosho.....	20,337	R. A. Light, M. D.	3	22	.....	1	46	121	167	184	181	90 00
Ness.....	4,707	J. A. Venable, M. D.	.....	.....	.....	2	3	28	18	20	10 00	.....
Norton.....	10,893	N. L. Jones, M. D.	6	.....	.....	1	2	45	64	73	80 00	3,000 00
*Osage.....	22,691	R. E. Miles, M. D.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Osborne.....	11,509	M. F. Hudson, M. D.	.....	.....	.....	.....	.....	14	35	90	20 00	.....
Ottawa.....	11,038	R. M. Clark, M. D.	4	12	.....	6	31	164	195	212	328	200 00
Pawnee.....	5,335	E. M. Cummins, M. D.	6	.....	.....	12	42	54	54	45	104	4,643 75
Phillips.....	13,454	S. S. Fisher, M. D.	2	.....	.....	3	8	28	36	175	78	25 00
Pottawatomie.....	17,039	E. L. Simonton, M. D.	2	.....	.....	5	97	102	175	128	.....	800 00

SYNOPSIS OF REPORTS FROM COUNTY HEALTH OFFICERS FOR THE YEAR ENDING DECEMBER 31, 1901—CONCLUDED.

COUNTIES.	Popu- lation.	Health officer.	Address.	Deaths from communicable diseases.									Total number of deaths.....	Total number of births.....	Total number of marriages.....	Salary of health officer.....	Expenses incurred by counties in controlling con- tagious diseases....
				Cholera infantum.....	Consumption ..	Croup.....	Cerebro-spinal meningitis....	Diphtheria.....	Measles	Scarlet fever...	Smallpox.....	Typhoid fever..	Number of deaths.....				
* Pratt.....	7,111	W. H. Everson, M. D.	Pratt	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	29	40	\$40 00	\$20 00
Rawlins.....	5,151	W. W. Newsome, M. D.	Atwood	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	217	306	50 00	1,000 00
Reno.....	29,178	G. R. Gage, M. D.	Hutchinson..	2	16	.....	3	.....	.....	.....	.....	.....	24	114	53	50 00	.....
Republic.....	13,562	J. I. Billingsley, M. D.	Belleville.....	.....	14	.....	5	.....	1	.....	.....	.....	5	187	96	50 00	.....
Rice.....	14,047	J. S. McBride, M. D.	Lyons.....	3	4	.....	.....	.....	.....	.....	.....	.....	8	83	.....	.....	.....
Riley.....	13,506	H. S. Willard, M. D.	Manhattan	.....	5	.....	.....	2	.....	.....	.....	.....	20	90	123	350 00	.....
Rooks.....	7,738	J. E. Jeffery, M. D.	Stockton.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	81	69	100 00	.....
Rush.....	6,252	W. H. Ferguson, M. D.	La Crosse.....	11	2	.....	.....	.....	1	.....	.....	.....	3	40	20	100 00	.....
* Russell.....	8,150	W. S. Brown, M. D.	Dorrance.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100 00	.....
Saline.....	17,242	J. W. Jenney, M. D.	Salina.....	2	11	.....	.....	.....	1	.....	.....	.....	4	137	199	75 00	1,025 00
Scott.....	1,068	H. S. Brevoort, M. D.	Scott City.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	15	.....	500 00	.....
Sedgwick.....	43,938	W. A. Jordan, M. D.	Wichita.....	20	35	.....	10	.....	15	.....	1	25	106	373	237	50 00	800 00
Seward.....	965	G. S. Smith, M. D.	Liberal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	17	.....	.....
Shawnee.....	56,378	G. W. Ellinger, M. D.	Topeka.....	2	.....	.....	.....	.....	.....	.....	2	.....	4	601	641	100 00	.....
Sheridan.....	4,018	D. M. Freeman, M. D.	Hoxie.....	.....	4	.....	.....	.....	2	.....	1	2	9	27	25	16 00	500 00
Sherman.....	3,180	Arthur C. Gulick, M. D.	Goodland.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	24	29	25	.....
Smith.....	15,451	W. B. Slagle, M. D.	Smith Center..	4	5	.....	.....	.....	.....	.....	.....	4	13	72	135	25 00	.....
* Stafford.....	9,239	W. R. Wilcox, M. D.	St. John.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stanton.....	341	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stevens.....	560	J. J. Spencer, M. D.	Lafayette.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	10	4	100 00	300 00
Sumner.....	26,002	W. M. Martin, M. D.	Wellington.....	5	16	.....	.....	.....	.....	.....	.....	13	.....	145	204	100 00	.....
Thomas.....	4,064	Wm. M. Beaver, M. D.	Colby.....	2	3	.....	.....	1	.....	.....	2	.....	8	50	29	100 00	1,700 00
Trego.....	2,652	A. B. Jones, M. D.	Wa Keeney.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	25	30	.....	.....
Wabunsee.....	12,405	G. C. Beale, M. D.	Alma.....	1	.....	.....	.....	.....	1	.....	.....	.....	4	49	85	100 00	.....
Wallace.....	1,238	E. F. B. Wilder, M. D.	Sharon Springs.	.....	2	.....	.....	.....	.....	.....	.....	.....	3	4	2	25 00	700 00
Washington.....	21,037	W. M. Earnest, M. D.	Washington.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	88	96	80 00	400 00
Wichita.....	1,221	A. M. Doyle, M. D.	Leoti.....	2	.....	.....	.....	.....	.....	.....	.....	.....	2	8	12	160 00	.....
* Wilson.....	15,552	F. M. Wiley, M. D.	Fredonia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Woodson.....	10,031	Otis Orendorff, M. D.	Yates Center	2	19	.....	.....	.....	.....	1	.....	9	34	128	89	50 00	.....
Wyandotte.....	74,267	W. P. Waite, M. D.	Kansas City..	.....	77	.....	.....	.....	.....	17	.....	29	130	327	1,125	600 00	25,000 00

* No report.

SYNOPSIS OF REPORTS FROM COUNTY HEALTH OFFICERS FOR THE YEAR ENDING DECEMBER 31, 1902.

COUNTIES.	Popu- lation.	Health officer.	Address.	Deaths from communicable diseases.										Deaths from other causes.....	Total number of deaths.....	Total number of births.....	Total number of marriages.....	Salary of health officer.....	Expenses incurred by counties in con- trolling contagious diseases.....
				Cholera infant- um.....	Consumption ..	Croup.....	Cerebro-spinal meningitis....	Diphtheria.....	Measles.....	Scarlet fever....	Small-pox.....	Typhoid fever..	Total number of deaths.....						
*Allen.....	23,322	F. D. Teas, M. D.	Iola.....																
*Anderson.....	13,198	D. M. Garmett, M. D.	Garmett.....																
*Atchison.....	30,369	D. W. Campbell, M. D.	Atchison.....	3	20		18	1	2			1	44	325	389	356		\$470 00	
*Barber.....	6,837	T. A. Coleman, M. D.	Medicine Lodge.....		2		1						3	17	20	40	68	110 00	
*Barton.....	13,823	E. E. Morrison, M. D.	Great Bend.....																
*Bourbon.....	26,375	R. Aikman, M. D.	Fort Scott.....	9	21				1	2		4	38	221	259	155	295	120 00	
*Brown.....	20,708	A. M. Pratt, M. D.	Hiawatha.....						2	3			8		5		174	40 00	\$1,003 00
*Butler.....	21,249	R. S. Miller, M. D.	El Dorado.....				3												
*Chase.....	17,260	Samuel Steele, M. D.	Strong City.....																
*Chautauqua.....	11,653	C. W. McHugh, M. D.	Sedan.....							1			1				167	Fees.	2,097 00
*Cherokee.....	35,830	D. Winter, M. D.	Columbus.....	21	53			1	5	4		12	101	426	537	777	422	400 00	
*Cheyenne.....	2,730	E. L. Westman, M. D.	St. Francis.....																
*Clark.....	1,608	W. F. Taylor, M. D.	Ashland.....		1		1						2	8	10	12		20 00	
*Clay.....	15,221	Samuel Reynolds, M. D.	Clay Center.....	7	12		2						21	112	133	62	116	100 00	
*Cloud.....	17,633	V. E. Zimmerman, M. D.	Concordia.....									1	1	17	18	22	157	Fees.	400 00
*Coffey.....	18,085	Wm. Manson, M. D.	Burlington.....					1					1	192	193	137		75 00	275 00
*Comanche.....	1,450	J. S. Halliday, M. D.	Coldwater.....	1									1	6	7	41	17	25 00	75 00
*Cowley.....	31,020	T. B. Taylor, M. D.	Winfield.....															Fees.	300 00
*Crawford.....	41,727	J. B. Gardner, M. D.	Girard.....	30	30		5		2	2		42	111	224	335	429	512	420 00	
*Decatur.....	8,674	S. L. Hubbard, M. D.	Oberlin.....																
*Dickinson.....	21,846	T. R. Conklin, M. D.	Abilene.....	2	6		3		1			8	20	99	119	262	178	400 00	700 00
*Doniphan.....	13,080	W. W. Carter, M. D.	Atchison.....	6	17		1		1			6	34	147	181	244	90	80 00	
*Douglas.....	23,921	A. W. Clark, M. D.	Lawrence.....	4	23		3		3			7	45	245	293	557	239	Fees.	
*Edwards.....	4,136	M. DeTar, M. D.	Kinsley.....	2	2		1					2	7	24	31	48	30	40¢ fees.	210 00
*Ellis.....	10,426	W. F. Black, M. D.	Longton.....																
*Ellis.....	10,051	H. E. Koll, M. D.	Hays City.....	1	2		1			1		1	6	28	34	180	79	50 00	300 00
*Ellsworth.....	9,447	H. O. Donnell, M. D.	Ellsworth.....																
*Finney.....	3,171	Andrew Sabine, M. D.	Garden City.....																
*Ford.....	6,117	C. W. Alton, M. D.	Dodge City.....																
*Franklin.....	21,136	H. W. Wright, M. D.	Ottawa.....																
*Geary.....	10,625	P. Daugherty, M. D.	Junction City.....																

SYNOPSIS OF REPORTS FROM COUNTY HEALTH OFFICERS FOR THE YEAR ENDING DECEMBER 31, 1902—CONCLUDED.

COUNTIES.	Popu- lation.	Health officer.	Address.	Deaths from communicable diseases.								Deaths from other causes	Total number of deaths.	Total number of births	Total number of marriages	Salary of health of- ficer	Expenses incurred by counties in con- trolling contagious diseases		
				Cholera infan- tum	Consumption	Croup	Cerebro-spinal meningitis	Diphtheria	Measles	Scarlet fever	Smallpox	Typhoid fever.	Number of deaths.						
Gove.....	2,816	J. E. Vanderpool, M. D.	Gove City.....	1	1			3				1	6	4	30	15	\$40 00	.....
Graham.....	5,820	W. E. Mowery, M. D.	Hill City.....														.....	.....
Grant.....	351	C. D. Hickok.....	Ulysses.....														.....	.....
Gray.....	1,302	G. W. Hollenbeck, M. D.	Cimarron.....	3	3							4	7	11	18	4	25 00	.....
Greeley.....	577	A. A. Allen, M. D.	Tribune.....		1								1		1		.....	.....
Greenwood.....	15,618	E. J. Norman, M. D.	Eureka.....	4	4			7				7	22	36	204	70	Fees.	\$700 00	
Hamilton.....	1,528	C. F. Harrison, M. D.	Syracuse.....														.....	.....
Harper.....	11,020	C. E. Ressler, M. D.	Anthony.....														.....	.....
Harvey.....	17,662	J. H. Cooper, M. D.	Newton.....	16	16					1		3	20	124	144	196	25 00	.....
Haskell.....	449																.....	.....
Hodgeman.....	2,554	A. B. Scott, M. D.	Jetmore.....	1						1			2	19	21	50	200 00	.....
Jackson.....	16,870	J. C. Shaw, M. D.	Holton.....														.....	.....
Jefferson.....	20,066	A. G. Smith, M. D.	Oskaloosa.....	5	14								19	62	81	94	600 00	1,500 00	
Jewell.....	16,851	E. L. Raynolds, M. D.	Mankato.....	1	3							2	6	50	110	85	75 00	400 00	
Johnson.....	17,646	Ernest P. Mills, M. D.	Olathe.....							7	1		8	172	180	131	152	60 00	250 00
Kearny.....	1,056	G. F. Johnston, M. D.	Lakin.....														.....	.....
Kingman.....	10,872	M. H. Haskins, M. D.	Kingman.....	1	10			1		6		3	21	61	82	129	60 00	200 00	
Kiowa.....	2,663	J. A. Gardner, M. D.	Greensburg.....									2	2	7	9	47	44 00	85 00	
Labette.....	23,819	John B. Hill, M. D.	Oswego.....	2	6			3				6	17	59	76	200	100 00	10 00	
Lane.....	1,980	C. H. Ewing, M. D.	Dighton.....														.....	.....
Leavenworth.....	40,708	E. S. Wood, M. D.	Jarbo.....														.....	.....
Lincoln.....	20,024	Alfred Hultner, M. D.	Lincoln.....		2							3	5	72	77	98	80 00	.....
Linn.....	15,905	Stanley H. Brooks, M. D.	Mound City.....	1	4								5	47	52	25	.....	.....
Logan.....	2,045	H. A. Stroup, M. D.	Russell Springs.....														.....	.....
Lyon.....	25,663	J. F. Morrison, M. D.	Emporia.....	14	26					1		10	51	185	236	83	75 00	200 00	
Marion.....	20,476	G. P. Marner, M. D.	Marion.....					4				3	7	45	52	103	100 00	200 00	
Marshall.....	23,149	B. P. Hatch, M. D.	Marysville.....		5							5	10	121	131	223	170	Fees.
McPherson.....	21,121	J. W. Brown, M. D.	McPherson.....	6	1			3				3	13	99	112	161	140	470 00	200 00
Meade.....	1,573	W. F. Fee, M. D.	Meade.....														.....	.....
Miami.....	20,004	D. W. Hays, M. D.	Oswatimie.....		1												.....	.....
Mitchell.....	13,444	Mary J. Lobdell, M. D.	Beloit.....	3	6							5	15	92	107	186	161	100 00	2,000 00

Montgomery	31,833	E. F. Mastermann, M. D.	Independence	5						3	8	50	58	176		200 00	
*Morris	11,673	W. E. Crawford, M. D.	Council Grove										5	3	2	180 00	
Morton	270	T. Ormsbee, M. D.	Richfield	3						10	14	24	38	65	170	50 00	200 00
Nenaha	20,133	C. M. Fisher, M. D.	Bern	15						4	27	58	85	101	68	200 00	
Neosho	20,333	U. G. Hoshaw, M. D.	Chanute							4							
Ness	4,792	J. A. Venard, M. D.	Ness City							2	4	28	32	38	29	10 00	
Norton	10,723	N. L. Jones, M. D.	Norton	5						1	4	11	67	78	90	80 00	115 00
*Osage	22,404	C. W. Beasley, M. D.	Lyndon														
*Osborne	11,842	A. C. Dillon, M. D.	Osborne City	6						2	1						
Ottawa	10,504	J. F. Brewer, M. D.	Minneapolis							4	24	74	98	113	86	Fees.	150 00
Pawnee	5,690	Joseph E. Ingels, M. D.	Larned	5						1	10	5	15	64	30	25 00	
Phillips	13,141	C. E. Nelson, M. D.	Phillipsburg										64	97	97	100 00	60 00
*Pottawatomie	16,034	E. L. Simonton, M. D.	Wanago														
Pratt	7,348	J. I. Douthart, M. D.	Pratt	6						2	13	39	52	57	86	50 00	
Rawlins	5,039	L. G. Graves, M. D.	Atwood	2						3	26	29	37	25	88 & fees.	400 00	
Republic	16,161	J. S. Billingsley, M. D.	Belleville	10						2	12	108	120	137	76	Fees.	235 00
Reno	23,238	G. R. Gage, M. D.	Hutchinson	6						5	46	162	198	147	256		
Rice	13,886	J. S. McBride, M. D.	Lyons							10	1		18	60	102	50 00	
Riley	13,334	J. D. Cobb, M. D.	Manhattan	3									75	20	145		
Rooks	8,235	N. L. Book, M. D.	Stockton	3						1	9	52	61	113	53	20 00	
Rush	6,807	W. H. Ferguson, M. D.	Le Crosse	1							4	21	25	60	20	12 00	
Russell	8,295	W. W. Bowen, M. D.	Bunker Hill	2						1	5	7	12	23	43	100 00	250 00
Saline	18,191	J. W. Jenney, M. D.	Salina	5						2	15	113	123	212	185	75 00	
*Scott	1,227	H. S. Bravort, M. D.	Scott City														
Sedgwick	47,354	W. A. Jordan, M. D.	Wichita	4						12	43	238	284	260	324	20 00	
Seward	803	G. S. Smith, M. D.	Liberal	2							2	6	8	16	4	50 00	
*Shawnee	56,863	W. F. Bowen, M. D.	Topeka														
Sheridan	4,061	F. A. Hall, M. D.	Hoxie	1						4	9	9	13	97	19	300 00	
Sherman	3,295	H. P. Gandy, M. D.	Goodland	1						1	2	9	11	32	20	100 00	
*Smith	15,051	W. B. Slagle, M. D.	Smith Center														
*Stafford	10,054	W. R. Wilcox, M. D.	St. John														
Stanton	321	J. J. Spencer, M. D.	Lafayette														
Stevens	699	W. E. Bartlett, M. D.	Belle Plaine	4						1	4	1	2	17	83	100 00	
Sumner	25,797	V. C. Eddy, M. D.	Colby														
*Thomas	4,180																
Trego	2,772	A. B. Jones, M. D.	Wa Keeney	1													
Wabaunsee	12,082	G. C. Rees, M. D.	Alma								1	12	13	60	28	50 00	
Wallace	1,147	E. P. B. Wilder, M. D.	Sharon Springs							2	2	8	10	9	10	25 00	
Washington	19,335	W. M. Enness, M. D.	Washington	7						2	3	12	113	128	185	189	80 00
Wichita	1,262	John F. White, M. D.	Leota										6	19	4	20 00	450 00
*Wilson	15,333	F. M. Wiley, M. D.	Fredonia														
Woodson	9,826	Otis Orendorff, M. D.	Yates Center	3						6	14	93	107	128	96	50 00	
*Wyandotte	74,267	C. W. McLaughlin, M. D.	Kansas City														
Toneka		C. E. Judd, M. D.		4						18	77	463	545	381	691		

* No report.

To County and Municipal Health Officers of the State:

It is to be regretted that this first biennial report of the State Board of Health does not contain a revised list of the physicians of the state. It is no fault of the State Board of Health that such list is not published in this report, for the reason that the list was not accessible, and thought it needless to reprint the old list contained in the last annual report, which is no doubt in the possession of all health officers of the state.

CHARLES LOWRY, M. D., *Secretary.*

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